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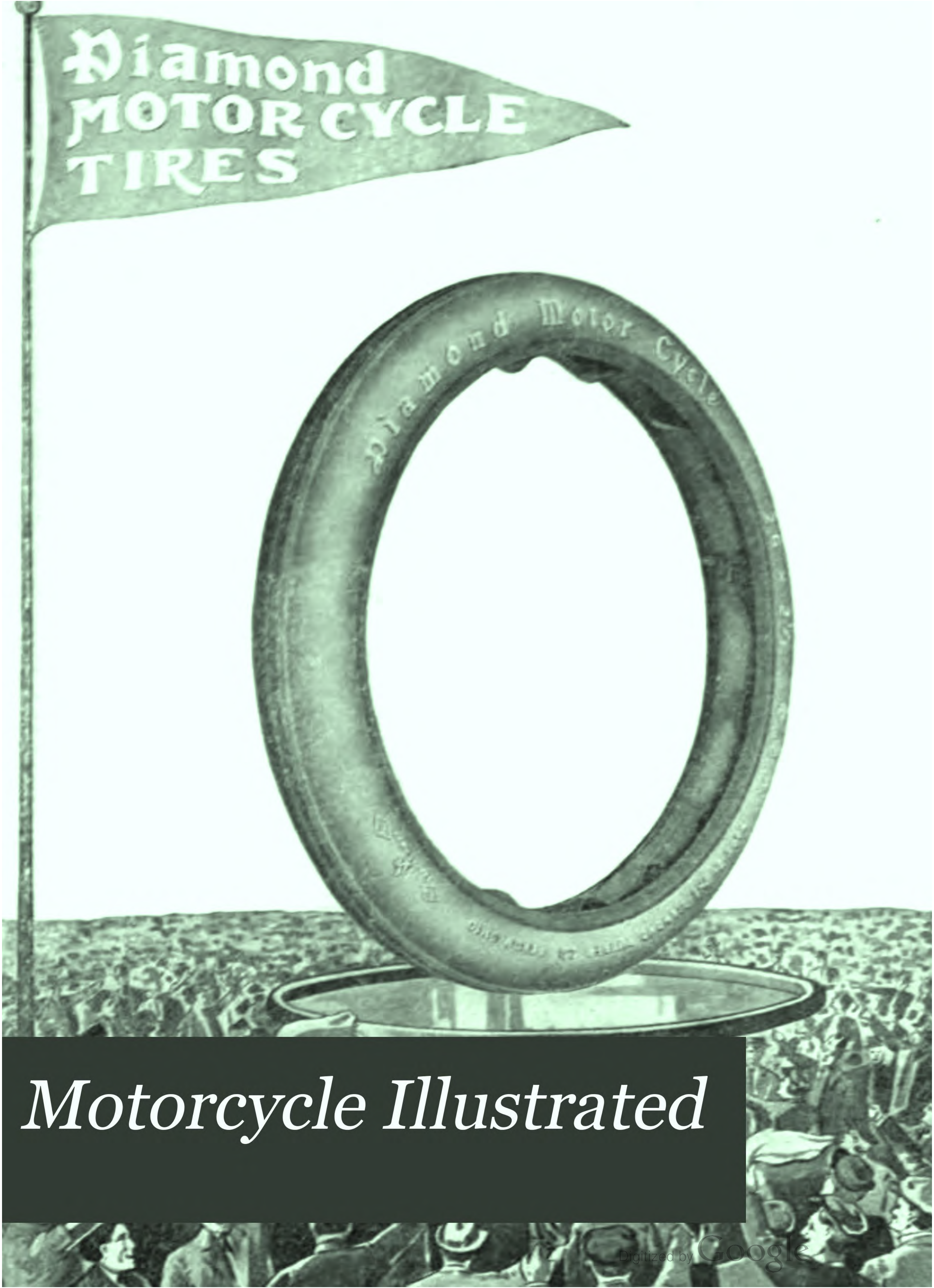
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FORECAST NEW YORK SHOW

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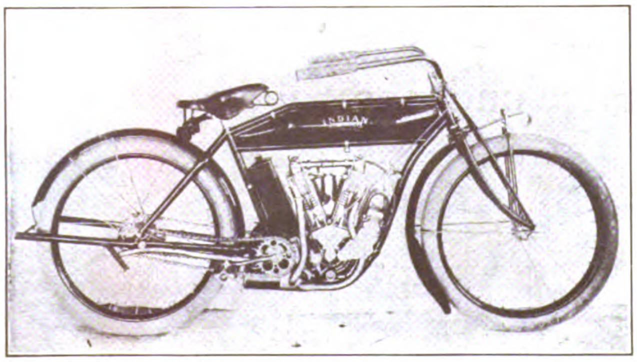

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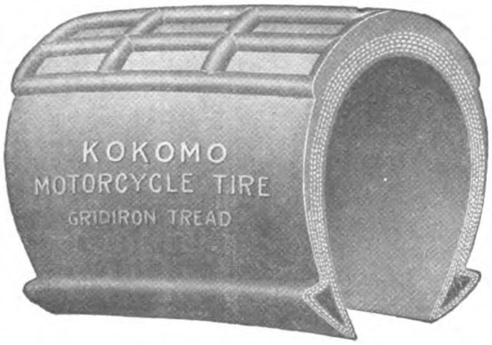
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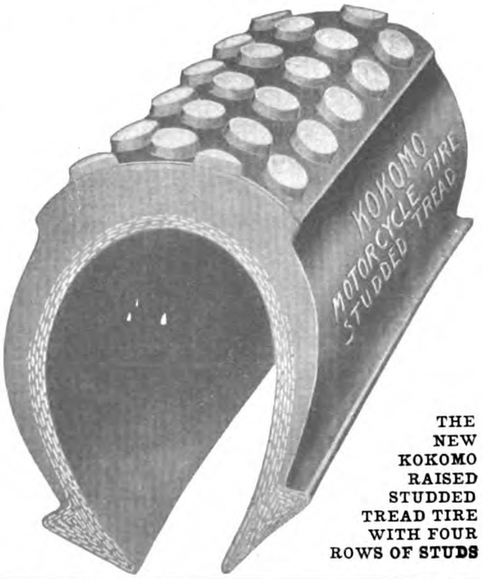
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MOTORCYCLE TIRE
STUDDED TREAD

THE NEW KOKOMO RAISED STUDDED TREAD TIRE WITH FOUR ROWS OF **STUDS**

MOTORCYCLE ILLUSTRATED

Vol. V. No. 1. January 1, 1910

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A FORECAST OF THE NEW YORK SHOW

A Glance at the Tendencies Shown in 1910 Models Including Those Which Will be Exhibited in Madison Square Garden and Also the Other Leading Makes—A General Review of Eighty-Nine Different Types.

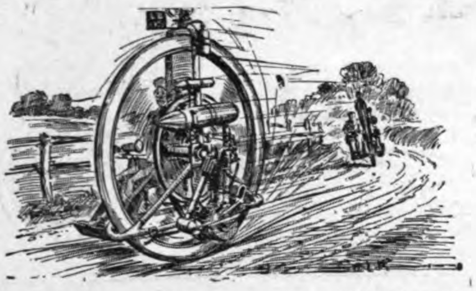
LACKING in radical changes in design and free, as a rule, from any striking departures from the important features which were standard in 1909 models, the American machines which will be seen on road and track this year are nevertheless vastly superior to their predecessors. Our manufacturers will demonstrate to visitors at the big motor vehicle shows that, in the working out of the details of their 1910 machines, they have carefully studied the needs and wants of the riding public which, in America at least, is anything but eager for any of the numerous freaks which in general construction and in a number of details characterize many of this year's British models. Contrary to the usual practice of the two nations, the American motorcycle manufacturer is by far the more conservative. Whether that is because he is newer to the science and the art of building two-wheeled motor drivers, or due to any other condition, is unimportant; the fact remains that American progress in this industry has been largely confined to improvement rather than to any serious or general effort to provide something new, something different from that which has gone before. No one will deny that, at the present stage of motorcycle construction in the United States, this is a distinctly healthy state of affairs, one which is sure to prove satisfactory not only to buyer and seller, but also to the manufacturers themselves, for radical change usually spells experiment.

An examination of the specifications of thirty-one different makes, including eighty-nine models, and comprising practically all that is best in motorcycles in this country, discloses the fact that the average manufacturer has been successful in resisting the temptation to load his 1910 models down with more or less inviting superficialities at the expense of the machine proper—the engine, its ignition plant, its frame, forks and transmission. On the contrary, every one of the nineteen makes which will be exhibited at the Madison Square Garden Show will be found to have undergone real development in these important particulars. In addition, the 1910 machines are, generally speaking, stronger, lighter, handsomer and altogether more attractive in appearance than the models which have been in service throughout the country during the past twelvemonth. In sum and substance, while the motorcycle rows in the New York, Chicago and Boston shows will have much of interest to the casual spectator, they will be genuine revelations to those who really can appreciate the comparative merits of structural details in motorcycle building. Rather than furnishing great surprises, the machines to be exhibited will please and satisfy the expert, and create in the outsider a strong and more or less irresistible desire to be the owner of one.

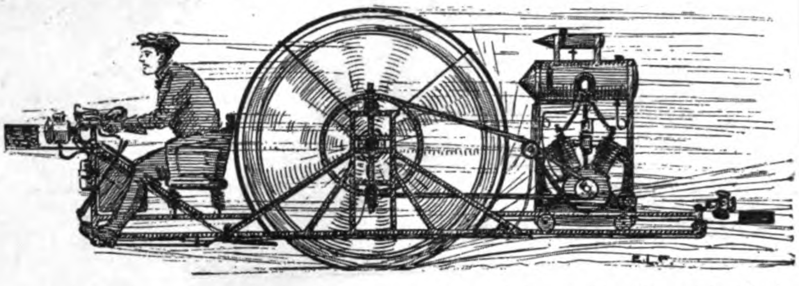
The following machines, made by the concerns which respectively follow their names, will be exhibited in the Motorcycle Section of the Tenth National Automobile Show, which is to be held in Madison Square Garden during the week beginning January 8: Curtiss, Herring-Curtiss Company; Emblem, Emblem Manufacturing Company; Excelsior, Excelsior Supply Company; Greyhound, Greyhound Motor Works; Harley-Davidson, Harley-Davidson Motor Company; Indian, Hendee Manufacturing Company; Marvel, Marvel Motorcycle Company; M. M., American Motor Company; Merkel-Light, Merkel-Light Motor Company; New Era, New Era Autocycle Company; N. S. U., N. S. U. Motor Company; Pierce, Pierce Cycle Company; Racycle, Miami Cycle and Manufacturing Company; Reliance, Reliance Motorcycle Company; Royal Pioneer, Royal Motor Works, Inc.; Reading Standard, Reading Standard Company; S. D., S. D. Manufacturing Company; Thor, Aurora Automatic Machinery Company, and the Yale, made by the Consolidated Manufacturing Company. These nineteen makes and the following have been used in compiling the information contained in this forecast: Bradley, C. E. Bradley Manufacturing Company; C. V. S., C. V. Stahl Motor Company; Crouch, Crouch Motor Company; Hilaman, A. L. Hilaman Company; Eagle, Eagle Motorcycle Company; Kiefler, Kiefler Motor Works; Manson, Fowler-Manson-Sherman Cycle Manufacturing Company; Minneapolis Two-Speed, Minneapolis Motorcycle Company; American Peugeot, C. F. Fulmer; Puch, Puch Import Company; Thiem, Thiem Manufacturing Company; Torpedo, Hornecker Manufacturing Company; the Tourist, Keller & Risque Motor Company, and the Wagner, Wagner Motorcycle Company. There are thirty-one makes represented and eighty-nine different models, an average of slightly less than three models of each manufacture.

While this year's proportion of singles to twins is practically the same as that of 1909, there being 56 of the former, 31 of the doubles and two four-cylinder models—the Pierce and Peugeot—an altogether striking characteristic of the singles is their greatly increased size and power. There is only a handful of single cylinder machines rated at less than three horsepower, while there are any number of professed "fours," a few of which the manufacturers claim four and one-half horsepower, and finally the Kiefler, with a bore of three and three-quarters inches and a stroke of four inches, developing fully five horsepower. This tendency to enlarge

TWO OF THE POSSIBILITIES OF MOTORCYCLING IN THE FUTURE



The 16 h. p. single Uni-motorcycle, with spring suspension, magneto ignition, free engine and wheel-steering.



The 8 h. p. twin-cylinder Uni, with wheel steering and free engine. The power plant slides upon rails at the rear platform by means of a cable actuated from the lever beside the driver.

bore and stroke and thus increase the compression area may be said to be almost universal. It undoubtedly counteracts whatever favoritism may have originally existed in the manufacturers' minds in behalf of a greater proportion of twins. The prediction that 1910 would see this proportion materially changed in favor of the double cylinders has not come true. On the contrary, this season will be notable because of its tryouts of numerous makes of big one-lungers, and it will also be featured by very general experimenting with the long-stroke engine.

LONG STROKE THE PREVAILING PRACTICE.

In this connection it is interesting to note that the stroke is greater than the bore in the New Era single, nine of the ten N. S. U. models, the tenth having the same bore and stroke, in the Bradley, Reliance, Hilaman, Manson, Puch, Torpedo, Emblem, Thiem, Minneapolis, Kiefler, Harley-Davidson, Indian, Peugeot, Excelsior, M. M., Greyhound, Racycle, Yale, Pierce single, C. V. S., R.-S., Marvel, Curtiss, and the Thor. The bore and stroke are the same in the Wagner models, the only notable exception to the long stroke practice for 1910 being found in three models of the Merkel-Light. This, then, is the second feature in which the new machines are remarkably distinctive. Although a fairly large number of the 1909 makes were so designed, the proportion was far from ninety per cent., which is easily the percentage in the machines to be manufactured during the season about to be opened.

VALVES AND LUBRICATION.

Turning our attention to the inlet valve, we find that the proportion of automatic to mechanical has not been materially changed. There is no denying, however, that the popularity of the mechanically-operated valve is slowly growing among the manufacturers of motorcycles. This year's compilation, comprising eighty-nine models, shows that of these fifty-one are equipped with automatic inlets and thirty-eight with intake valves operated by cams. The valves this year are larger and stronger than they have ever been in American-made machines. There are also indications which seem to point toward increasing popularity for the overhead type.

With respect to lubrication, a great diversity of systems seems to show that we are still in the experimental period. It is interesting to note that the manufacturers announce fully a dozen more or less diversified oiling systems, as follows: Force feed, gravity, sight feed, sight force feed, pump and force feed, mechanical and force pump, automatic sight feed, vacuum automatic adjustable sight feed, splash and force feed, gear pump, hand pump, automatic float, and mechanical by the splash system. In some of these cases, of course, the distinction is in phraseology only; but it is nevertheless evident that there is a great difference of opinion among designers as to the respective merits of the many oiling devices which they are free to adopt. It is plain, however, that they are approaching a uniformity of thought at least in indicating a marked preference for mechanical oilers, which are decidedly in the ascendancy. It is almost safe to predict that two years hence practically every American machine will be automatically lubricated. It may be remarked that the *autocycle* feature of the motor-driven two-wheeler is being emphasized, as it should be, more strongly every year. The manufacturers are keeping uppermost in their minds the idea of compelling the machine to do more, thus, of course, permitting the rider to produce the same results by less exercise of his muscular and mental faculties. This is demonstrated, for example, in the tendency to provide self-oiling systems, in the growth of the two-speed idea and the almost universal adoption of handlebar control.

OTHER ENGINE DEVELOPMENTS.

Other engine improvements include more careful and generally better castings, particularly of the cooling flanges which, in American models, have undoubtedly been capable of betterment; the adoption by several manufacturers of cylinders cast in one piece with their heads, the application of the ball bearing idea to a number of engines or, on the other hand, more efficient and stauncher bushings; straighter exhaust pipe and more up-to-date mufflers, with the cut-out generally conspicuous by its absence. The carbureters, which will be individually described in our next number, include the Breeze, Brown and Barlow, Hedstrom, Heitger, Keifler, M.M., Marvel-Curtiss, Merkel, N. S. U., Longuemere, R.-S., Shebler, Thor and several others which are designed espe-

SUMMARY OF IMPORTANT POINTS IN 1910 AMERICAN MODELS

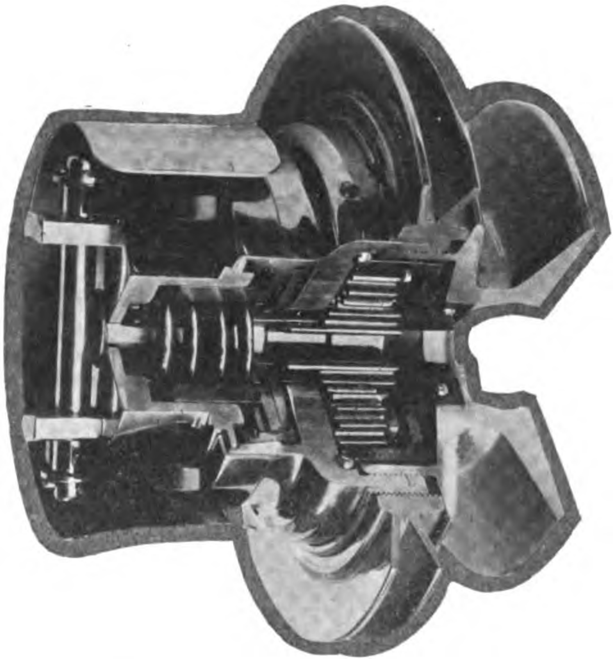
No. of Cylinders.		Inlet Valves.		Ignition.		Transmission.	
Singles	56	Automatic	51	Magneto	48	Chain	22
Twins	31	Mechanical	38	Battery	26	Belt	63
Fours	2			Option	15	Shaft or gear	4
	—		—		—		—
Total	89	Total	89	Total	89	Total	89

cially for the machines to which they are fitted and bear no distinctive names.

In ignition, the magneto is steadily advancing, although improvement in coils is responsible for the existence still of a comparatively large number of battery models. Dry cells have been made lighter and more compact, so that a first-class battery machine has its attractions to the purchaser bent upon saving from one-sixth to one-eighth of the cost of his mount. Of the eighty-nine models announced by the thirty-one manufacturers named above, twenty-six are fitted with batteries, forty-eight with magnetos, while on fifteen the purchaser is offered an option. It may be explained here that in the table on pages six and seven, wherever a choice is indicated, the price is that of the battery machine, magneto ignition being $25 to $35 extra. In the matter of control, the handlebar, double grip, twist-of-the-wrist system is almost universal, the N. S. U. and a few other makes being operated by handlebar levers. Bowden piano wire has given such satisfaction in the past that it is more generally used than ever before.

GREAT VARIETY OF FORKS.

In the way of forks, the 1910 offerings include double and triple springs, pneumatic, girder, rigid with truss, truss cushion, the Indian cradle spring, the Greyhound shock absorber, the Racycle barrel and plunger type, the patented Merkel and a variety of others, all of them showing great improvement over the forks of 1909. Generally speaking, it may be said that the advances made in this particular and applied to 1910 machines will easily add twenty-five per cent. to the comfort of the rider and fully as much to the wearing qualities of his mount. The average wheel base shows that this has been lengthened, with a view to obtaining a low center of gravity, an easy and safe riding position and greater general stability. The wheels are about equally divided between those whose diameter is twenty-six inches and those which measure two inches more, or twenty-eight, from rim to rim.



N. S. U. Two-Speed and Free Engine.

TIRES, SADDLES AND BRAKES.

Tires in the new models are larger and stronger than in previous years. In a number of cases they are furnished at the purchaser's option, although in most instances he has the choice of two of the standard makes, including G & J, Morgan & Wright, Kokomo, Empire, Goodrich, Diamond and, in the foreign machines, Peter Union. The saddles include the Mesinger, Persons, Troxel and Brooks. Here again, the buyer invariably has the choice of two or more. Just as increasing strength characterizes 1910 tires, saddles, and the parts which are more intimately identified with the machines themselves, so is it found to be a prominent characteristic in the braking systems, of which there is a greater variety than ever. The brake manufacturers have concentrated their efforts to the end of making their product stronger and at the same time lighter and more compact, although they do not profess by any means to have uttered the last word on this subject. Among brakes the 1910 purchaser may choose the New Departure Internal Expanding, the N. S. U. Internal Expanding and also Belt Rim, the Eclipse, Thor, Corbin, Corbin-Indian External Expanding, the Musselman, Merkel Band and several others. With one or two exceptions, one brake is considered sufficient, contrary to this year's practice on the other side, although it cannot be said that the British manufacturers themselves were at all keen to fit a double-braking system to their mounts.

TWO-SPEEDS AND FREE ENGINES.

It is when the statistician looks into the two-speed and free engine situation that some of the most interesting disclosures are made. While fifty-three models are fitted with direct drive, and although the two-speed or free engine, or both, is standard equipment on only twelve models, upwards of a score are designed with a view to furnishing change speed devices, if desired by the buyer. It must be admitted that so many opportunities to obtain two-speeds are offered to 1910 motorcyclists largely because of the success of the campaign recently inaugurated by the N. S. U. Motor Company, manufacturers of the well-known N. S. U. two-speed and free engine. Although this company has been pushing its two-speed for the past six years it has found the task of obtaining proper recognition a rather difficult one, but now the reliability and trustworthiness of the N. S. U. gear are almost universally acknowledged in this country and several manufacturers are prepared to attach it to their models when the purchaser is willing to pay the comparatively small additional cost. In addition to the N. S. U., two-speed gears in large quantities have been supplied during the past year, mostly to individual riders, by the Keller & Risque Motor Company, Bushnell & Cannon and the Rex Tool and Manufacturing Company. Change-speed devices have been and will be standard equipment on the Pierce four-cylinder shaft drive, with sliding gear, on the Minneapolis and the New Era models. Gear changes are obtained in other makes by different-sized sprockets, by an adjustable variable pulley, as in the Merkel, and by undergearing, as in two N. S. U. models. Free engine effects have been made available in the Excelsior, Harley-Davidson, M. M. and a few other machines.

THE N. S. U. GEAR DESCRIBED.

The gear illustrated herewith, which will be fitted, at the purchaser's option, to a number of makes besides the N. S. U., is the new 1910 Two-speed and Free Engine Gear, which has been slightly improved over the old type, in that instead of the screws and rollers, which required some attention, and which loosened if not adjusted, a substantial bolt is fitted, extending across the face of the gear, and passing through two extensions of the inner clutch, being secured at both sides by a steel washer and split pin. The gear, being nothing more than a slightly enlarged belt pulley, has the advantage of taking little space and adding small weight, while being applicable at any time to practically any motorcycle, by substituting it for the old belt pulley. The speed reduction available is said to be approximately 40 per cent.

The free engine and second speed are mounted on ball-bearings to prevent friction or overheating. These bearings are hardened wherever subjected to wear. The device is operated by means of a hand lever and a rod running from a clip on the top frame tube to the engine shaft. When the handle is turned to the left, the high gear is operated by

SOME OF THE TRADE LEADERS

GEORGE M. HENDEE,
Hendee Manufacturing Company.

JOSEPH MERKEL,
Merkel-Light Motor Company.

GEORGE W. SHERMAN,
Aurora Automatic Machinery Co.

W. F. REMPPIS,
Reading Standard Co.

A. B. COFFMAN,
Consolidated Mfg. Company.

W. T. MARSH,
American Motor Company.

ARTHUR DAVIDSON,
Harley-Davidson Motor Company.

EUGENE C. KICHERER,
N. S. U. Motor Company.

GEO. W. HORNECKER,
Hornecker Motor Mfg. Co.

K. R. JACOBY,
Miami Cycle and Mfg. Company.

W. C. OVERMAN,
Greyhound Motor Works.

JAMES TURPIN,
New Era Autocycle Company.

CLARENCE A. EARL,
Corbin Screw Corporation.

H. MESINGER,
Mesinger Mfg. Company.

EDWARD BUFFUM,
Merkel-Light Motor Company.

WM. DAVIDSON, JR.,
Harley-Davidson Motor Company.

forcing a conical shape wedge against a metal to metal clutch. Turning the handle to the right allows the motor to run free, the shaft being situated on two races of ball-bearings. Continuing the movement to the right will complete the change to low gear, caused by a geared inner shaft, working through sun-dials to the main pulley, thus reducing the revolutions of the pulley over those of the shaft, and thereby giving the motor double its power.

To start the engine, the rider jacks up the rear wheel on the stand, throws in the high gear by turning the crank handle to the left, and starts the engine by a turn of the pedal; next, he turns the crank handle back to free engine position, raises the stand, and the machine is ready for mounting. After becoming seated in the saddle, the rider simply engages the low gear and glides away, in the same way as he would were he operating an automobile. This gear is available for attachment to any motorcycle using a belt drive, the only alteration necessary being that of reducing the shaft of the motor to the same size as that of the gear.

SIXTY-THREE BELT-DRIVEN MODELS.

In the matter of transmission, the change in proportion of chain to belt-driven machines can hardly be said to be notable, although it is evident that the belt drive is slowly gaining in popularity in this country. Although the foreign machines are practically all belt driven, twenty-two of the eighty-nine American models considered in this review are equipped with chain transmission, and sixty-three have the belt drive.

Other characteristics of 1910 models include more substantial and more strongly reinforced frame tubing, better joints, heavier spokes, longer and more comfortable handle bars, automatic stands in several models, larger gas and oil capacity and a more attractive finish.

GARDEN SHOW DECORATIONS ELABORATE AND QUITE UNIQUE.

MADISON SQUARE GARDEN is the place, and the week beginning January 8, the time of the opening of the 1910 motor season. The big exhibition is called an automobile show, and the four-wheelers are given the preference in the matter of location and other advantages. But the attention of the readers of this paper will be concentrated upon the basement row in which nineteen makes of the smaller self-propelled vehicle will be shown in all the beauties of their new dress, and bristling with many features which were absent from 1909 models. That the show will be fully as interesting to the motorcycling trade and fraternity as to students of progress in automobile construction is certain from the nature of the 1910 specifications, published in detail elsewhere in this issue.

In seeking to produce a proper setting for the motor cars, motorcycles and accessories, the show managers have not spared expense; this is made very clear by the fact that more than $30,000 has been expended for decorations. The show is becoming every year more important as a social event at which the latest fashions, in both cars and costumes, are displayed, and for several years now it has been the yearly affair for which the Garden is most handsomely decorated. White and gold are the colors that have been selected to predominate in the decorative scheme, although crimson and green will also be strongly in evidence.

A Roman seat, or fountain, which is not of a height to assert itself offensively, and permits a comprehensive view of the Garden, has been constructed opposite the entrance-way to aid in the artful plan of "opening up" the interior. The fountain has a modest elegance and is in the form of a low abutment of gray stone curving gracefully about the spaces of those exhibitors that face the entrance on the Madison avenue side. It has a trough-like basin, and at each end and in the center water from the mouths of griffins and gargoyles will spray upon the pool beneath, made iridiscent by cunningly hidden lights. The falling water also will be electrically radiant, of course. There will be big and little goldfish and natural pond-lilies in the pool, and mingling with the natural lillies will be artificial water plants from which will radiate other vari-colored lights. Carved into the front wall of the fountain is a long settee for visitors. Two great bay trees will be seemingly growing through this comfortable seat. In sum and substance the show settings are altogether attractive and worth seeing. The management has certainly done justice to this task.

THE MOTOR CYCLE EXHIBITS AND THEIR LOCATIONS.

MOTORCYCLES: BASEMENT.

Curtiss, Herring-Curtiss Co., Hammondsport, N. Y.
Emblem, Emblem Mfg. Co., Angola, N. Y.
Excelsior, Excelsior Supply Co., Chicago, Ill.
Greyhound, Greyhound Motor Works, Buffalo.
Harley-Davidson, Harley-Davidson Motor Co., Milwaukee.
Indian, Hendee Mfg. Co., Springfield, Mass.
M-M, American Motor Co., Brockton, Mass.
Marvel, Marvel Motorcycle Co., Hammondsport, N. Y.
Merkel-Light, Merkel-Light Motor Co., Pottstown, Pa.
New Era, New Era Autocycle Co., Dayton, Ohio.
N. S. U., N. S. U. Motor Co., New York City.
Racycle, Miami Cycle & Mfg. Co., Middletown, Ohio.
Pierce, Pierce Cycle Co., Buffalo.
R-S., Reading Standard Co., Reading, Pa.
Reliance, Reliance Motorcycle Co., Owego, N. Y.
Royal Pioneer, Royal Motor Works, Worcester, Mass.
S. D., S. D. Manufacturing Co., Brooklyn, N. Y.
Thor, Aurora Automatic Machinery Co., Chicago.
Yale, Consolidated Mfg. Co., Toledo.

TIRES: ACCESSORIES: EQUIPMENT.

Ball Bearings, New Departure Mfg. Co., Basement.
Chains, Diamond Chain & Mfg. Co., Arena platform.
" Whitney Mfg. Co., Arena platform.
Carbureters, Wheeler & Schebler, Arena platform.
Brakes, Eclipse Machine Co., Basement.
Brakes, New Departure Mfg. Co., Basement.
Cyclometer, Veeder Mfg. Co., Arena platform.
Funnel, Dover Stamping & Mfg. Co., Concert hall.
Gloves, etc., Morrison-Ricker Mfg. Co., Arena balcony.
Ignition Devices, Herz & Co., Arena platform.
" Splitdorf, C. F., Arena platform.
Lamps, Badger Brass Mfg. Co., Arena platform.
Magneto, Bosch Magneto Co., Balcony, Fourth avenue.
Plugs, Emil Grossman Co., Balcony, Madison avenue.
" Herz & Co., Arena platform.
" Jeffery-DeWitt Co., Arena balcony.
" Splitdorf, C. F., Arena platform.
Saddles, H. & F. Mesinger Co., Basement.
Speedometer, Jones Speedometer Co., Arena platform.
Sundries, Baker & Co., F. A., Basement.
" Excelsior Motor & Mfg. Co., Concert hall.
" Post & Lester Mfg. Co., Basement.
Tires, Ajax-Grieb Rubber Co., Arena platform.
" Continental Rubber Works, Arena platform.
" Diamond Rubber Co., Arena platform.
" Empire Tire Co., Arena platform.
" Fisk Rubber Co., Arena platform.
" Goodrich Co., B. F., Arena platform.
" Goodyear Tire & Rubber Co., Arena platform.
" G & J Tire Co., Arena platform.
" Morgan & Wright, Arena platform.
" Pennsylvania Rubber Co., Arena platform.

NAME AND MODEL OF MACHINE.	NAME AND ADDRESS OF MAKER.	NUMBER OF CYLINDERS.	BORE.	STROKE.	H. P.	INLET VALVES.	LUBRICATION.	CARBURETER.	IGNITION.	CONTROL.
Curtiss Twin	Herring-Curtiss Co., Hammondsport, N. Y.	2	3¼	3⅝	8	Mechanical in-the-head	Mechanical	Curtiss	Batt. or mag.	Double gri
Curtiss Single		1	3¼	3⅝	4		Mechanical	Curtiss	Batt. or mag.	Double gri
Emblem Model 104	Emblem Manufacturing Company, Angola, N. Y.	1	3 3-10	3½	4	Automatic	Sight force feed.	Heitger	Magneto or battery on all models.	Grip
Emblem Model 105		1	3½	4	5	Automatic		Heitger		Grip
Emblem Model 106		2	3 3-10	3½	7	Automatic		Heitger		Grip
Excelsior	Excelsior Supply Co., Chicago.	1	3¼	3½	4	Automatic	Mechanical	Shebler	Battery	Double gri
Excelsior		2	3	3½	6	Mechanical	Mechanical	Shebler	Magneto	Double gri
Greyhound Battery Magneto	Greyhound Motor Wks., Buffalo, N. Y.	1	3¼	3⅝	4	Automatic	Sight feed	Breeze	Battery Magneto	Double gri
Harley-Davidson 6	Harley-Davidson Motor Company, Milwaukee, Wis.	1	3 5-16	3½	4	Automatic; very large; on same side of cylinder; inlet, flat seated over exhaust.	Vacuum automatic; adjustable sight feed.	Shebler	Battery	Double grip; al parts wit handleba to do aw with lost moti
Harley-Davidson 6A		1	3 5-16	3½	4			Shebler	Bosch mag.	
Harley-Davidson 6B		1	3 5-16	3½	4			Shebler	Battery	
Harley-Davidson 6C		1	3 5-16	3½	4			Shebler	Bosch mag.	
Harley-Davidson 6D		2	3⅛	3½	7			Shebler	Bosch mag.	
Harley-Davidson 6E		1	3 5-16	3½	4			Shebler	Bosch mag.	
Harley-Davidson 6F		2	3⅛	3½	7			Shebler	Bosch mag.	
Indian, 19.30	Hendee Manufacturing Company, Springfield, Mass.	1	2¾	3¼	2¾	Mechanical	Automatic by mechanically operated pump.	Hedstrom automatic compensating.	2 batteries	Double gr
Indian, 19.30		1	2¾	3¼	2¾	Mechanical			Bosch mag.	Double gr
Indian, 30.46		1	3¼	3 43-64	4	Mechanical			Batt. or mag.	Double gr
Indian, 30.46		1	3¼	3 43-64	4	Mechanical			Bosch mag.	Double gr
Indian, 38.61		2	2¾	3¼	5	Mechanical			Bosch mag.	Double g
Indian 60.92		2	3¼	3 43-64	7	Mechanical			Bosch mag.	Double g
Marvel	Marvel Motorcycle Co., Hammondsport, N. Y.	1	3¼	3 11-16	4	Mechanical	Auto. float	Marvel-Curtiss	Magneto	Double g
M. M. Mag. Spec.	American Motor Co., Brockton.	1	3¼	3 43-64	4	Mechanical	Mechanical	M. M.	Bosch mag.	Double g
M. M. Bat. Spec.		1	3¼	3 43-64	3½	Automatic	Force feed	M. M.	3 dry cells	Double g
M. M. Mag. Tw.		2	3¼	3 43-64	7	Mechanical	Mechanical	M. M.	Bosch mag.	Double g
Merkel-Light, A	Merkel-Light Motor Company, Pottstown, Pa.	1	2⅝	3	2½	Automatic inlet, and mechanical exhaust.	Sight gravity feed.	Thor	3 dry cells	Double g
Merkel-Light B		1	2¾	3¼	3½			Thor	3 dry cells	Double g
Merkel-Lt. V, 3½ H.		1	3¼	3¼	3				3 dry cells	Doubl grip, leverle and jointle
Merkel-Lt., V, 6H.		2	3¼	3¼	6		Automatic mechanical force feed.	Merkel automatic compensating.	Bosch ball-bearing magneto 2 dry cells.	
Merkel-Lt., V, 7H.		2	3.45	3.25	7					
Merkel-Lt., W, 4H.		1	3.45	3.25	4					
Merkel-Lt., W, 4H.		1	3.45	3.25	4					
New Era	New Era Autocycle Co., Dayton, O.	1	3⅛	3½	3½	Automatic	Gravity sight feed.	Shebler	2 dry cells	Double g
New Era		1	3½	3½	5	Automatic		Shebler	2 dry cells	Double g
N. S. U. 2H Roadster	N. S. U. Motor Company, 206 W. 76th St., New York, City.	1	2 15-32	3 1-16	2	Automatic Mechanical overhead type.	Force feed	Hot air jacketed float type.	Bosch	Handle
N. S. U. F. A. M. 3½H.		1	3 5-32	3 5-32	3½		Force feed		Bosch	Handle
N. S. U. F. A. M. 4H.		1	3 11-32	3 29-64	4		Force feed		Bosch	Handle
N. S. U. 4H. De Luxe		1	3 7-32	4⅛	4		Force feed		Bosch	Handle
N. S. U. 3H. Roadster		2	2 1-16	2 15-16	3		Force feed		Bosch	Handle
N. S. U 4H. De Luxe		2	2½	3 11-32	4		Force feed		Bosch	Handle
N. S. U. 6H. De Luxe		2	3	3 11-32	6		Force feed		Bosch	Handle
N. S. U. 6H. F. A. M.		2	3	3 11-32	6		Force feed		Bosch	Handle
N. S. U. Stock Racer		2	3 1-5	4	7		Automatic		Bosch	Handle
N. S. U. Deliv. Van		2	3	3 17-32	6		Force feed		Bosch	Handle
Pierce, Four Cyl.	Pierce Cycle Co., Buffalo, N. Y.	4	2 7-16	2⅜	7	Mechanical	Gear pump	Breeze	Magneto	Double
Pierce, Single		1	3½	4	5	Mechanical	Hand pump	Breeze	Magneto	Double
Racycle Battery Magneto	Miami Cycle & Mfg. Co., Middletown, O.	1	3¼	3⅝	4	Automatic	Sight feed	B. & B.	Battery Magneto	Double
Royal Pioneer	Royal Motor Works, Worcester, Mass.	1	3½	3.17	4	Mechanical	Splash and force feed.	Adaptation of B. & B.	Bosch	Double
Reliance	Reliance Motorcycle Co. Owego, N. Y.	1	3¼	3⅜	3½	Mechanical	Sight f'd, by splash system.	Reliance	Optional; magneto $25 extra.	Double
Reliance		1	3 7-16	3⅝	4½	Mechanical		Reliance		Double
Reliance		2	3¼	3⅜	7	Mechanical		Reliance		Double
R.-S. Model 5	Reading Standard Company, Reading, Pa.	1	2 15-16	3¼	3	Mechanical; overhead rocker arm.	Mechanical oiler, by splash system.	Single float	Batt. or mag.	Patent
R.-S. Model 6		2	2 15-16	3¼	6			Single float	Magneto	Patent
R.-S. Model 7		1	3¼	3⅝	4			Single float	Batt. or mag.	Patent
R.-S. Model 8		2	3¼	3⅝	7			Single float	Magneto	Patent
Thor, Model C	Aurora Auto. Machinery Co., Chicago.	1	2¾	3¼	3¼	Automatic	Force feed	Thor	Battery	Double
Thor, Model F		2	2¾	3¼	6	Automatic	Force feed	Thor	Magneto	Double
Thor, Model K		1	3¼	3 3-5	4	Automatic	Automatic	Thor	Batt. or mag.	Double
Yale, Single	Consolidated Mfg. Company, Toledo, O.	1	3¼	3 11-16	3½	Automatic	Force pump	Breeze	Battery	Double
Yale, Single		1	3¼	3 11-16	3½	Automatic	Force pump	Breeze	Bosch mag.	Double
Yale, Twin		2	3¼	3 11-16	6½	Automatic	Force pump	Breeze	Bosch mag.	Doubl

FORKS.	WHEEL BASE IN INCHES.	SIZE OF WHEELS.	TIRES.	SADDLE.	BRAKE.	GEAR.	TRANSMISSION.	GASOLINE CAP. GALS.	OIL CAP. QUARTS.	FINISH.	WEIGHT.	PRICE.
Spring	57	28	Kokomo	Persons	Eclipse	2-speed and free	V Belt	2	2	Sil. gray	150	$275
Spring	57	28	Kokomo	Persons	Eclipse	engine optional	V Belt	2	2	Sil. gray	125	$200
Spring	56	28	2½ inch	Troxel	Eclipse	Two speed if	V and flat belt	2	2	Carmine	175	$200
Spring	56	28	Empire	or	Eclipse	wanted	V and flat belt	2	2	and	180	$225
Spring	56	28	or G. & J.	Mesinger	Eclipse	by purchaser	V and flat belt	2	2	gray.	200	$250
Patent spring	54	28	G. & J., M. & W.	Troxel or	Musselman	Free engine	Flat belt	1¾	1½	Gray and red	175	$225
Patent spring	56	28	or Kokomo.	Mesinger	or Thor.	by idler	Flat belt	2	2	Gray and red	190	$325
Spec. shock	57	28	Kokomo	Mesinger	Eclipse	Direct, 5.1	Flat or V	2½	2	Pearl gray	200	$225
absorbing.			or option.				belt				200	$250
	55	28			Thor	New		2	3		...	$210
	55	28	Morgan &	Troxel,	Thor	idler	Free engine	2	3		...	$250
Trussed	55	26	Wright,	Mesinger	Thor	to take	by use of	2	3	Gray	...	$210
cushion	55	26	G. & J.	or	Thor	place	1¾ flat	2	3	and	...	$250
forks.	57	28	or	Persons.	Band	of	belt with	2	4	carmine	...	$300
	55	26	Kokomo		Band	clutch	new idler.	2	3		...	$275
	57	28			Band			2	4		...	$350
Cradle spring	53	28	G. & J.			Two-speed	Chain	2	2	Blue	140	$200
Cradle spring	53	28	G. & J.	Brooks	Corbin-	on third	Chain	2	2	red or	140	$225
Cradle spring	53	28	G. & J.	or	Indian	and sixth	Chain	2	2	green ;	150	$225
Cradle spring	53	28	G. & J.	Mesinger.	Band	models if	Belt	2	2	nickel on	150	$250
Cradle spring	53	28	G. & J.			wanted—$50	Chain	2	2	copper	155	$275
Cradle spring	53	28	G. & J.			extra	Chain	2	2		160	$325
Spring	56	28	Kokomo	Mesinger	Eclipse	Two-speed	Leather V	2	2	Gray	135	$225
						optional	belt					
Trussed	54	26	2¼″	Mesinger	Coaster	Dir. drive	V or	1½	1½	Red with	165	$225
Trussed	54	26	2¼″	Mesinger	Coaster	or fr. engine,	flat	1¼	1	nickel	165	$200
Trussed	57	26	2½″	Mesinger	Coaster	with clutch	belt	1¾	1½	trim.	180	$300
Spring	54	28		Mesinger	Thor	Dif. size	Roller chain	1½	1½	Black or red	145	$150
Spring	54	26		Mesinger	Thor	sprockets.	Roller chain	1½	1½	Black or red	150	$200
Spring	54	28	M. & W.	Mesinger	Eclipse	Adjustable		1½	1½	Smoke gray	150	$200
Merkel	53	28	or	Mesinger	Merkel b'd.	variable	V rubber	1½	1½	Orange yel.	175	$300
trussed	53	28	Kokomo.	Mesinger	Merkel b'd.	speed	or leather	1½	1½	Yel. or blue	175	$325
spring	53	28		Mesinger	Merkel b'd.	pulley.	belt	1½	1½	Yel. or blue	160	$250
one unit.	53	28		Mesinger	Merkel b'd.			1½	1½	Yel. or blue	160	$225
Sager	60	28	2½″-2¾″	Form seat	Internal	Two-speed	Planetary	1¾	1½	French gray	186	$275
Spring	60	28	2½″-2¾″	Form seat	Expanding	Two-speed	gear	1¾	1½	French gray	186	$300
	51	26	P. U. 2″		Band brake	Undergeared.	S. G. Rub. Belt	1½	1	Black	108	$230
Pneumatic	55	26	P. U. 2¼″			Two-speed and	S. G. Rub. Belt	1¾	1	enamel ;	148	$250
shock	54	26	P. U. 2¼″	Mesinger	Belt rim	free engine	S. G. Rub. Belt	1¾	1	paneled	155	$300
absorbing	54	26	P. U. 2¼″		and	or direct drive.	S. G. Rub. Belt	1¾	1½	tanks.	165	$300
spring	53	26	P. U. 2″	or	internal	Undergeared	S. G. Rub. Belt	1½	1		125	$275
type.	57	26	P. U. 2¼″		expanding	pulley	S. G. Rub. Belt	2	1½		170	$340
	57	26	P. U. 2½″	Troxel.		two-speed.	S. G. Rub. Belt	2	1½		175	$360
Girder	54	26	P. U. 2¼″		Band brake	Direct	S. G. Rub. Belt	1¾	1½	French gray	165	$375
Girder	54	26	P. U. 2¼″		None	Direct	S. G. Rub. Belt	2	1¾		165	$425
Girder	62	26	P. U. 2½″		Two	Two-speed.	S. G. Rub. Belt	2	½	Optional	...	...
Pierce spring	60	28	2½″	Mesinger	Hub & band	2-speed, sliding.	Shaft	1¾	2½	Black or red	190	$350
Pierce spring	54	28	2½″	Mesinger	Hub	4½—1	Belt	1¾	2	Black or red	180	$250
Barrel and	56	26	G. & J.	Optional	Musselman	Direct drive	V belt	2	½	Gray & green	160	$225
plunger type.	56	28			armless.							$250
Double spring	56	26	Optional	Persons	Optional	Two-speed	V belt	2	2	Black or gray	185	$265
	56	28				if wanted						
Trussed	56	28	Kokomo	Mesinger	Eclipse	Two-speed,	V belt	2	3	Orange	...	$200
Trussed	56	or	or	or	and	free engine,	V belt	2	3	and	...	$210
Trussed	56	26	Empire	Troxel.	Corbin	extra	V belt	2	3	black	...	$250
R.-S. cushion	54	26	Optional	Troxel	Optional	6—1	Chain	2½	2	Brown	140	$210
R.-S. cushion	54	26	Optional	Troxel	Optional	5—1	Belt or chain	2½	2	Brown	155	$285
R.-S. cushion	54	26	Optional	Troxel	Optional	5—1	Belt or chain	2½	2	Brown	148	$235
R.-S. cushion	54	26	Optional	Troxel	Optional	4—1	Chain	2½	2	Brown	160	$335
Pneumatic	53	28	G. & J. or M. & W.	Troxel	Thor	Direct drive	Geared chain	1½	1½	French gray	140	$200
Pneumatic	53	28	G. & J. or M. & W.	Troxel	Thor	Direct drive	Geared chain	2	2	French gray	160	$275
Pneumatic	54	28	G. & J. or M. & W.	Troxel	Thor	Direct drive	Geared chain	2	1½	Royal blue	170	$250
Cushion	55	28	28″ x 2½″	Troxel	Eclipse	Direct drive	S. G. V or	1½	2	Gray	160	$200
Cushion	55	28	28″ x 2½″	Troxel	Eclipse	Direct drive	flat leather	1½	2	Gray	160	$235
Cushion	55½	28	28″ x 1½″	Troxel	Eclipse	Direct drive	belt	1½	2	Gray	190	$300

FOR NOVICE AND EXPERT TOO

Motorcycles As They Are and May Be—Their Parts Illustrated.

WE are indebted to London *Motorcycling* for the two drawings and the descriptions which are published on these two pages. The illustrations and the matter accompanying them have been arranged to embody the latest ideas of motorcycle construction, although, of course, this machine exists only in the imagination of the designer. Many of its features differ from what is generally accepted as regular design, but are, nevertheless, methods that we believe will be fairly universal in the near future and we therefore have no hesitation about including them in this very up-to-date machine. For instance the oil hand-pump (No. 54) is at the rear of the tank, and its corresponding gauge (No. 13) is also at the rear. The driving belt has above it a really substantial guard and is so arranged that it can be dismantled by removing four screws. The exhaust pipe is brought down in a big sweep beneath the crankcase and taken to the space between the engine and mudguard, where a muffler worthy of the name can be fitted. These drawings are designed to educate the beginner at the sport; but the expert, in going through the details, may wonder where the exhaust cut-out is fitted. It is not shown anywhere on the drawing, for the good and sufficient reason that it is a nuisance to every other user of the highway.

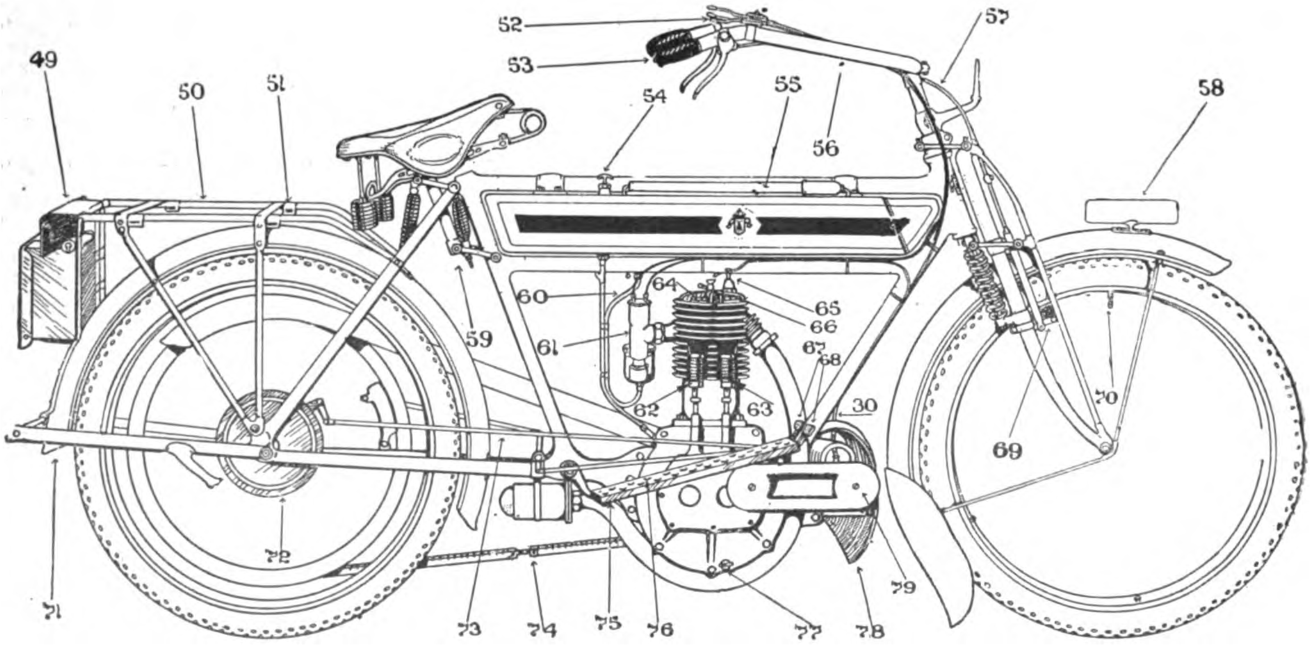
The designer avoided the twisting of the copper gasolene pipe into curls, by clamping it with detachable clips to the oil pipe, each bracing up the other without interfering with dismantlements when necessary, and making both actually stronger than where curls are employed. Another innovation is a rear internal-expansion brake, or, rather, the use of this, together with a rear-belt rim brake. The designs show both, because they are typical of 1910 practice; but, of course, only one of these would be necessary for the rear wheel. The fillers to the gasoline and oil tanks are much larger than is usual, and have spring-held caps that need not be unscrewed, hinges holding them when the lids are pulled up. A paraffin injector is shown at No. 18, with tap (20) and pipe leading directly over the mouth of the compression-release tap (23).

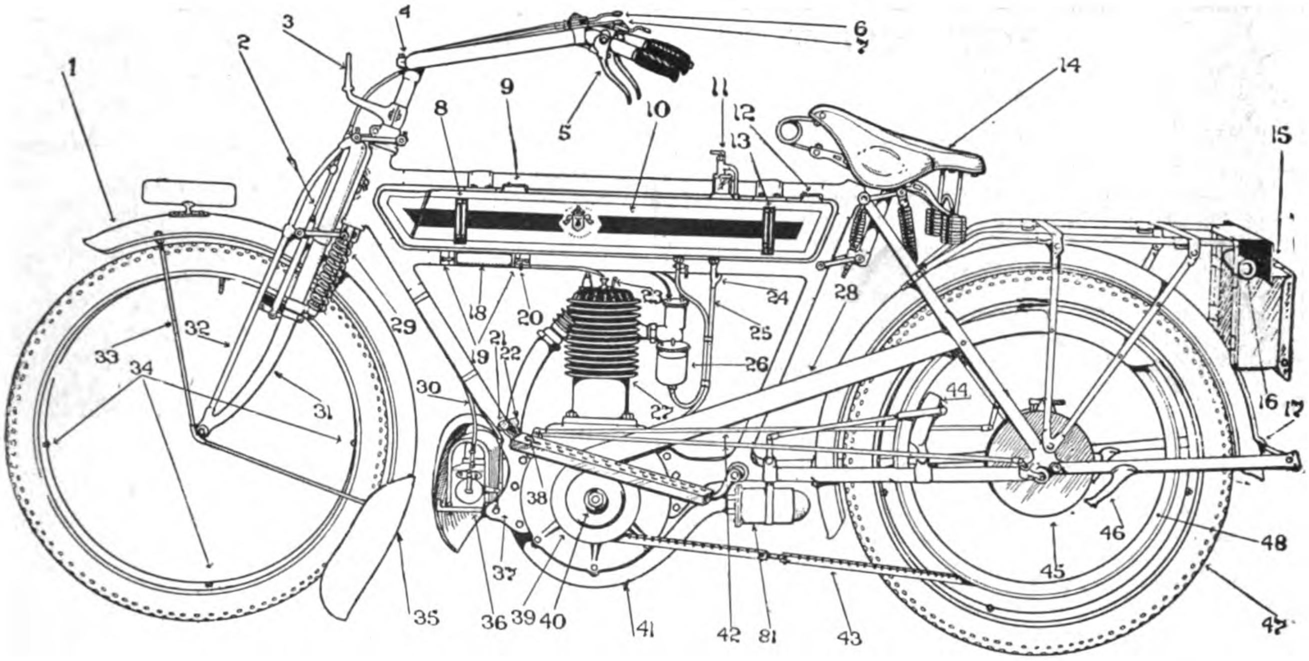
Every part has been drawn with due reference to its surroundings, and, although not actually to scale, it is sufficiently near to accuracy to form a basis from which good working drawings might be evolved. Most manufacturers are on the alert for good ideas, and are as keen to satisfy the demand for the best that human brains can devise. These drawings are designed to help in that direction.

It may be useful to compare some of the fittings on this machine with those at present, or about to be, constructed. One of the small, but none the less important requirements, now that magneto ignition is almost universal, is a proper switch arrangement for earthing (short-circuiting) the current, and accessory makers have realized this fact and can now supply such a fitting. This arrangement should form an integral portion of the machine. If the drawing on the second page is carefully examined it will be noticed that the wire from the front central terminal of the magneto is taken up above, clipped to the frame, and passing thence past the handlebar is taken through near the end, and there finished off by a projecting spring-pushed button at the end of the right-hand grip, convenient for touching with one finger, without interfering with the proper control of the exhaust lifter by the rider's right hand. This detail is referred to particularly in order to emphasize the fact that these drawings have occupied much time in considering every likely point that can arise.

Readers are advised to keep both reproductions for future reference, because from time to time we purpose publishing special articles dealing with various phases of the subject from the points of view both of the novice and the expert. The latter may cavil at the omission of a pedaling chain from the design; but this has been done by the designer because of his conviction that, except for lightweights, the pedaling chains will have to go the way of the exhaust cut-out—into the limbo of the unregretted. Some indications of this trend will be found in the number of machines to be fitted with free engines and two-speed gears. This will be the standard type of the future, and we shall be very much mistaken if the 1911 Show does not reveal these in preponderating numbers.

The only point upon which there may be some difference





of opinion concerning the merit of our design is the capacity of the tank, though it is the ideal pattern for a big mileage.

EXPLANATION OF REFERENCE NUMBERS.

1, Front extension mudguard. 2, Front brake band. 3, lamp bracket. 4, Adjusting clip for handlebar rake. 5, Front brake lever. 6, Throttle lever. 7, Air lever for carbureter. 8, Gasoline gauge. 9, Gasoline filler cap. 10, Gasoline tank. 11, Drip-feed lubricator. 12, Filler for oil tank. 13, Oil gauge. 14, Touring saddle. 15, Tool kit. 16, Oilcan. 17, Clip for stand on mudguard. 18, Paraffin reservoir. 19, Clips for paraffin reservoir. 20, Tap for ditto. 21, Top gear lever. 22, Low gear level. 23, Compression release tap. 24, Union from the oil pump and side feed drip. 25, Oil. 26, Float chamber of carbureter. 27, Air-cooled cylinder. 28, Belt guard. 29, Front fork springs. 30, Switch wire between magneto and handlebar at 53. 31, Main front forks. 32, Auxiliary front fork. 33, Front guard stay. 34, Tire security bolts. 35, Mudguard splasher. 36, Magneto. 37, Cradle for engine. 38, Locking and release pedal for high gear. 39, Crankcase. 40, Nut for handle starting of engine. 41, Exhaust pipe. 42, Rods from pedals on footboard to high and low gears. 43, Driving belt. 44, Rear belt rim brake. 45, Casing of two-speed gear. 46, Stay for stand. 47, Rear studded tire. 48, Belt rim. 49, Rear number plate. 50, Luggage carrier. 51, Eyes for straps of luggage carrier. 52, Magneto control lever. 53, Magneto switch. 54, Hand pump lubricator. 55, Tire inflator. 56, Adjustable handlebars. 57, Cable connection from 5 to front rim brake 69. 58, Front number plate. 59, Spring saddle pillar. 60, Gasoline pipe. 61, Mixture chamber of carbureter. 62, Exhaust valve spring. 63, Inlet valve spring. 64, Cap over exhaust valve. 65, Sparking plug. 66, Cap over inlet valve. 67, Pedal to actuate rear rim brake at 44. 68, Pedal to actuate internal-expansion brake at 72. 69, Front rim brake block. 70, Tire-inflating valve. 71, Rear mudguard. 72, Rear internal-expanding brake. 73, Connecting rod from pedal 67 to brake 72. 74, Adjustable belt fastener. 75, Aluminum footboard. 76, Rubber studs in ditto. 77, Oil drainage tap from crankcase. 78, Mudguard for magneto. 79, Dust-tight cover over magneto driving gear. 80, Studded front tire. 81, Muffler.

PRINCE TO BUILD HALF-MILE BOARD SAUCER IN LOS ANGELES.

LOS ANGELES is to have the fastest motordrome in the world, and Jack Prince will design and build it. Every preparatory detail has been worked out and the structure will be completed by the spring. By adopting the same principles that have proved their superiority in the fast Coliseum track, Prince asserts that he will be able to furnish a course for automobile and motorcycle racing men that will permit them to do miles in thirty-five seconds, or even less. These figures, if established, will rank the Los Angeles track as far superior to either the Indianapolis speedway, with its mile record of 43 seconds, or the Atlanta speedway, which has a record of 37½ seconds. This difference in speed possibilities, Prince says, lies in the use of wood for the track surface, instead of rolled dirt or any other material. The wood, he points out, makes a better and more safe traction than any other surface yet used on any track in the world, and this principle would seem to have been proved at Los Angeles and at Springfield, Mass., where all the world's motorcycle records have been established.

In Prince's new speedway, or motordrome, there will be no straightaway. Instead, the track will be a perfect circle, the banks at every point having a pitch of about twenty degrees from pole to outer fence, with a runway on the inside of the pole fence that lies almost flat, by means of which the racing cars can get on and off the track proper. An immense amphitheater, entirely roofed, to be erected at a given point along the rim of the mammoth saucer, or bowl, will seat at least 15,000 spectators, while bleachers will extend from either end of this amphitheater, affording seating capacity for additional thousands.

A faint conception of the immensity of the project may be gleaned from the fact that over three million feet of lumber and heavy timbers will be required in the construction of the saucer, together with fully sixty-five tons of spikes. The track proper will consist of 2 x 4 beams, laid on edge on top of powerful timbers, well propped from underneath, and will be capable, it is said, of allowing a loaded freight train to pass over it with as much impunity as it would over the most powerful trestle. The track will be fifty feet in width, or several feet wider than the Indianapolis speedway, allowing cars to pass each other at highest speed at any point of the big saucer, and with the maximum of safety.

Rocky Trail in Texas
Ft. Hancock "Hotel"
Pecos Viaduct
"Sand" Stretch

CROSSING TEXAS

A Tough and Wearisome Journey—By Herbert A. [illegible]

[illegible] automobile [illegible] his [illegible] [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible] to make [illegible] [illegible] [illegible] [illegible] under impossible conditions [illegible] [illegible] [illegible] [illegible] [illegible] pleased me [illegible] [illegible] [illegible] the Southern [illegible] [illegible] the achievement of any [illegible]

[illegible] San Antonio as [illegible] miles. The riding was good [illegible] the railroad [illegible] with no [illegible] something called a road along [illegible] and rubbed in all kinds of [illegible] [illegible] and then [illegible] [illegible] wheels [illegible] I decided to [illegible] proved to be an- [illegible] "Hotel" [illegible] miles I [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] and nowhere [illegible] I took these [illegible] as it was possible [illegible] Sierra Blanca late that afternoon [illegible] anything but pleasant. I had [illegible] across any number of narrow trestles [illegible] the hardest curves I have ever seen [illegible] and then I narrowly escaped [illegible] [illegible] is not so [illegible] to imagine that steep, dangerous run and see whether [illegible] that motorcycling in [illegible]

[illegible] next day I sustained my first real puncture, caused by my running into a spike. Despite my vows of the day before, I left the railroad and made fairly good time until, when near Valentine, my fork suddenly broke off from the head of the frame. Strapping the front wheel to the machine, I managed to pull the combination into town, much to the amusement of its denizens. After three days I obtained a new fork stem, having had to telegraph to Los Angeles for it. The road out of Valentine is not at all bad, though it was frightfully dusty and the wind blew a gale the day I negotiated it. After riding all the afternoon in a veritable storm of dust, and having had to open countless cattle gates crossing the road, I plunged into a stream of water the depth of which I had miscalculated. But as that wasn't the first drenching I had received, I managed to take it more as a matter of course, and reached Alpine none the worse for my involuntary bath. That night a cold wind sprang up, continuing throughout the next day. The road was rough, full of rocks, mesquite brush and cactus, a fine combination for a mount like mine. Not only that, but the cold wind penetrated to the very marrow, while the brush and cactus gave me many a scratch and cut. It was a [illegible] one's determination to the utmost. At half-past two I arrived at a railroad station, where I obtained information regarding the trains nearly due and started down the track, which was very rough and hard on both machine and tires. I had a steady pull upgrade on a ballasted bulk of heavy crushed granite covered with a coat of oil and upon which I had to maintain a speed of eighteen miles an hour in order not to be shaken to pieces. While making this speed and watching for the limited passenger train due at any moment I saw not more than twenty-five feet ahead of me an open box-cattle-guard, which I had not been able to see before on account of darkness. I was going far too fast to think of stopping or of jumping before getting to it, and imagined myself and machine a tangled mass in this pit. But, swinging my back wheel against the left rail, I simply trusted to luck that I could stay on this two-inch wooden stringer or beam upon which the rail was spiked. I managed to cross, weak and frightened, and got off to see just how nearly I had come to being smashed to pieces. I had no sooner put my foot on the ground when the passenger appeared in sight just around the curve, not more than fifty yards ahead. I barely had time to throw my machine from between the rails and jump to one side. I was a nervous wreck, and so disturbed I hardly knew what to do; but as darkness reminded me of coming night I dragged the machine back up to the tracks and started off again, to go a little more than a mile, when I ran over a broken bottle, thrown out by some diner, and cut my rear tire. Happening to have a piece of candle with me, I repaired the puncture and proceeded to Rosenfield. There I saw a very good road running from the siding, and I left the railroad in hopes it would lead to a farmhouse, where I might spend the night. I soon found to my sorrow that it led away into the hills, and I had to return.

It was dark and cold by this time, so I rode as fast as possible, expecting every moment to be thrown into another cattle guard. After riding about three miles I came to a station consisting of only two houses and a water tank. As small as it was it looked good to me, so I started to seek a place to eat and sleep for the night. Supper I got from a crew who were working on railroad bridges in that section. Although it was served and eaten in an old side-tracked box car, I think I enjoyed it more than the most expensive dinner I ever ate. After supper I pulled my machine into the pump house with me and sat all night by a warm fire, which was more than good, as the cold outside was intense.

Taking to the road the next morning I could not make much progress, owing to the cold. After nine miles of torture I arrived at Sanderson for breakfast, gasoline and an opportunity to get warm. When I got two miles out of Sanderson I began having my old road experiences, being ultimately forced to cut down part of a fence to reach the railway track. I hardly know why I kept on, for everything was against me —the condition of the road and of the tracks, a high wind and an intense cold. I did not stop, however, until I reached Dryden, where the station agent, a woman, made me very uncomfortable by questioning my right to ride on the iron thoroughfare owned by the Southern Pacific folks. The argument grew so bitter that I decided to vamoose, cold and weary as I was, and resume my desolate journey. Fortunately I had learned not to depend upon an engineer seeing me on the track. The next time I stepped aside to let a train pass, it was to have the engine go by at full speed just as I had started to cross a trestle. There was no engineer nor fireman to be seen in the cab of the locomotive. That experience impressed me very strongly with the perils of railway motorcycling. I was lucky not to have left my mangled remains upon one of the scores of bridges I had to cross. It was dark when I arrived at the next pumping station. There being only one house at this place I was invited to spend the night in the cellar, next to the furnace. I brought in my machine, and you can readily imagine my chagrin when I found the next morning that the warmth of that heater had evaporated my gasoline. I had to wait for a freight, from the crew of which I managed to buy a gallon.

The following day, after a most trying ordeal, during which I pushed and carried my machine half the time and sustained no less than five punctures, I reached the great bridge over the Pecos River. I experienced no trouble in crossing this structure, which is said to be surpassed in height by only two other bridges in the world. Finally, more dead than alive, I reached Comstock, where I spent the night. My hiring a Mexican and his team to take me across Devils River, the most beautiful stream I have ever seen, and an afternoon's weary journey through a driving rain, were my next day's experiences. By this time the strain of it all had begun to tell on me and I arrived in Brackettville a sick man. Despite my weakened condition I could not resist the temptation, after a night's rest, to go on through the wet and cold and over the roughest sort of roads, until I reached Uvaldie, where a Mr. Klinglesmith did all in his power to make me comfortable. The next day I reached San Antonio, where I found a very sociable lot of riders who made my stay very pleasant. I had now ridden 2,988 miles.

After seeing all of interest and making quite a few new friends I started again for Houston. All went well until I tried to ford streams of deep cold water, in one of which I managed to pick up a good sized nail with my rear tire, and then had the pleasure of finding a puncture in a tire covered with blue mud. Getting out of this trouble I journeyed on and found much more mud, sand and many streams. One was too deep to ford, so I took a railroad bridge near by, and remained on the railroad until I arrived at a little town called Luling, after a half day's ride, in which I covered only sixty-two miles. Leaving there early the following morning I traveled only a short distance when I found the roads far too bad to travel, so I tried the railroad track for thirty miles more. At Flatonia, and again after leaving Weimer, I found the roads constituted of dry adobe mud and rock, almost unridable. I caused a big team to run away, damage a wagon and destroy part of a fence. While they were making out my bill of damages my machine took fright and ran away with me. Then I rode into a heavy shower, which necessitated more walking and more pushing of my machine. Nothing else of interest occurred during the balance of my trip to Houston, where I made a two days' stay.

Alternating between abominably wet and muddy wagon routes and not much better railroad tracks, I passed through the little town of Nome into the rice-growing section of the State, and finally into Beaumont. No one seemed to know how to get out of this town except by rail, but I managed it, nevertheless, even though I had to push my machine through swampland and water until I arrived at the town of Orange, on the Sabine River, which divides Texas from Louisiana, to which State I crossed next morning.

At Orange the natives viewed me and my machine with much curiosity, and although they were quite friendly and wished me good luck, they did not hesitate to express their misgivings as to my making much further progress. The railroad here is ballasted with oyster shells, and I found it such poor riding that at Winton I returned to the road, nothing more or less than a succession of swamps. Just out of Edgerley I completely lost my way, and it was only by chance that, in a dense and swampy woodland, with the rain coming down in torrents, and in a dismal, dank atmosphere, I stumbled upon a lumber camp. The folks here knew nothing regarding the location of the town I sought, so I tried the railroad once more. The next time I inquired I was told that, by following a certain trail for twelve miles I would reach my destination. I tried this and lost the trail after I had covered only two miles. Just then a terrific thunderstorm broke over me, out in the open, and with absolutely no protection against the ferocious onslaught of the elements. Pushing my machine through and over all sorts of obstacles, I blindly picked my way through the murky darkness, guided only by the flashes of lightning. It was nearly nine o'clock when I imagined I saw a light. I left my machine behind and ran towards it, when it suddenly disappeared. I returned, took hold of my wheel, and, though weak and sore of heart, again pressed forward in the direction of the beacon ahead, until a brilliant flash of lightning revealed a little hut, where a lumberman, with wife and family, treated me most kindly, furnishing a good square meal of simple but greatly relished food, and a bunk of straw upon which to rest my weary bones.

I found that I had made a complete circuit of twenty-six miles, and was then only eight miles from the town from which I had started that morning. The next few days' riding took me through the lowlands of southern Louisiana. I passed through Sulphur, St. Charles, Iowa, Midland Junction, Rayne, Lafayette, Gades, New Iberia, Baldwin, Morgan City and Houma into New Orleans, 4,011 miles from the start.

WITH THE CLUBS

THE Metropolitan Association of Clubs is now a reality. With the New York, New Jersey, Concourse, Harlem, Linden, Metropolitan and Long Island clubs, practically all of importance in the metropolitan circuit—committed to the plan; with officers elected, constitution and by-laws adopted, and arrangements being made for an inter-club dinner, it must be plain to anyone that the movement has really been launched under auspicious circumstances. And that is just what has occurred.

Two meetings have been held, on the 22d and 29th of last month, respectively, in the offices of Dr. J. P. Thornley, in the Hotel Ansonia. Five clubs were represented at the first meeting, and seven at the second, and both gatherings were beautifully harmonious. In fact, the petty jealousies and sometimes mean bickerings which have hitherto characterized the attitude of these clubs towards one another, have been completely done away with as a result of the two conferences. The seven clubs, though each one maintains intact its original organization, will hereafter work and play, and, to a large extent, *think* on common ground. The organization will be the most powerful and undoubtedly the most influential in motorcycle circles in the United States, even though it has come into being not to take the place of the clubs of which it is composed, but to strengthen them by bringing them together and to enable them to act as a unit where they have heretofore conflicted, as in their arrangements for conducting club runs, race meets, etc.

The association, which is constituted of representatives of each of the participating clubs, has elected the following officers: President, R. S. Morton, New York Club; secretary, L. H. Guterman, Harlem Club; treasurer, Dr. J. P. Thornley, New York Club. It was decided to hold the first inter-club dinner Friday, January 14, at Castle Cave, Seventh avenue and Twenty-sixth street. A. G. Chapple and Harold Fletcher, of the New York and the Linden clubs, were appointed as the dinner committee. They will be assisted in making the required arrangements by R. S. Morton and Vandervoort H. Downes, the latter of the Concourse Club. This affair will take the place of the dinner which has annually been given during Show week under the auspices of the New York Club. Arrangements will be made on an elaborate scale, and there is a big time in prospect for all who attend.

* * *

THE Tri-City Union of Motorcyclists was formed December 10 at the Whitcomb House, Rochester, N. Y., when representatives of the motorcycle clubs of Rochester, Buffalo and Syracuse formed a committee and formally launched the organization. Those composing the commission are Dr. C. W. Laselle, J. J. Malone and C. P. Strogen, of Rochester; G. W. Fenner, A. V. Brewster and J. M. Gillespie, of Syracuse, and W. Graham, W. E. Nevius and H. K. Ganson, of Buffalo. This commission will have the direction of the affairs of the organization. The commission elected the following officers: President, Dr. C. W. Laselle; secretary, W. Graham, and treasurer, J. M. Gillespie.

Prizes Awarded at Syracuse Club Dinner.

The object of the tri-city organization is to promote touring and racing meets, map out the roads and routes of the State and publish a small paper to be called the "Three-City Bulletin," which will contain up-to-date information for the benefit of motorcyclists. At the meeting of the executive committee it was declared that the organization was pledged to do all it could to abate the speed-fiend nuisance on the public roads and city streets. President Lasalle said that all of the events held by the organization would be under the sanction of the Federation of American Motorcyclists. Three big race meets have been arranged for the coming season, one on May 10, at Syracuse; one in Rochester, on July 4, and one in Syracuse during the week of the State Fair.

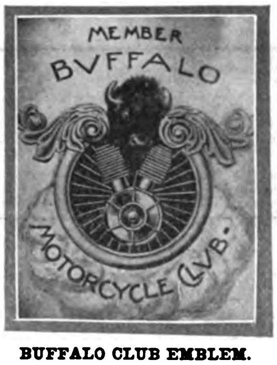
Dr. Lasalle said further: "The movement for a large organization comprising the members of the Buffalo, Rochester and Syracuse motorcycle clubs was started in Rochester and was quickly given hearty support in the other cities. At the present time the clubs of the three cities have a membership of about 450, and it is expected that the membership will reach 600 before spring. The outlook for motorcycle sport this year is very bright, as the dealers state that orders have already been placed for fifteen new machines this year for every one ordered last year. The prosperity of the people allows them to order more expensive and better equipped machines this year than ever before, and they are doing it.

"The Tri-City Union will establish independent supply stations at favorable points between the cities where the members may secure gasoline, oil and other sundries and make minor repairs when necessary. The clubs have established official hotels as follows: Whitcomb House, Rochester; Vanderbilt House, Syracuse, and the Statler, at Buffalo."

* * *

THE members of the Syracuse, N. Y., club were entertained Tuesday evening, December 14, at the residence of A. V. Brewster, who was chairman of the committee which had charge of the races at the New York State fair on September 18. There were present forty-five members of the club, with Police Captain Thomas W. Quigley, Fire Captain Addie Group and Coroner's Assistant Dr. Herman G. Weiskotten as invited guests. Refreshments were served, members of the club sang, and Captain Quigley gave three recitations, in addition to commending the organization for the good it had done in the way of censuring members for reckless riding. During the evening five large trophy cups were awarded, three for the races and two for the parade. W. R. Shields got two of the race cups, and Captain Edward Stauder, of the Rochester Club, one. Harry F. Grover got one parade cup and Harold F. Turner the other. The second prizes were tires, Howard Dawson getting a pair of Goodrich make, Wesley Shane a pair of Diamond tires, and James Fymore a pair of the Kokomo brand. Third place prizes were awarded George T. Lockner, Edward Stauder and J. M. C. Gillespie. Pictures of the prizes and of the club members were made by Captain George W. Fenner, of the Syracuse Club. On January 14 the club will hold its annual banquet and election of officers.

GEORGE RIECHEY, of Newark, N. J., winner of the special bronze trophy which was presented to the member of the New Jersey Motorcycle Club who registered the greatest mileage in the club's weekly runs, rides a Yale 3½ h. single-cylinder machine with an N. S. U. two-speed gear, which, he claims, makes an ideal combination for a touring machine. Riechey scored over 1,000 miles in the weekly runs, and also toured more than 2,000 miles additional during the season. The number of places visited by him during the summer suggest an economical and at the same time pleasant method for the tired office worker or mechanic, who is confined within four walls all week, to spend his week-ends out in the open air.



BUFFALO CLUB EMBLEM.

His initial trip was a two-day endurance run to Atlantic City and back on May 30 and 31. The distance is about 256 miles. He came through with a perfect score and won a gold medal. From then on until the present time his spare moments were spent in touring and racing. Among some of the places visited and which he recommends to the motorcyclist, as they take him over the almost perfect roads of Northern New Jersey and through some of the most interesting scenery to be found anywhere, are trips to Newfoundland, Somerville, Princeton, Greenwood Lake, Hackettstown, Woodport (Lake Hopatcong), Budd Lake, Green Pond, Washington, Asbury Park, Chester and Stanhope, in New Jersey, and to Newburg, N. Y.

During the season Mr. Riechey won six medals in speed contests at the various race meets held in Olympic Park, so that he got plenty of sport as well as pleasure out of his machine. During the winter he expects to fit a tandem attachment to his machine and use a three-inch tire on the rear wheel to take the strain of the extra weight.

* * *

A RUN around the Bay is projected by the San Francisco Club as a New Year "opener." The riders will leave the clubrooms at 40 Haight street at 10 o'clock in the morning, Sunday, January 2, and will finish at Melrose schoolhouse in Oakland. The boys will be required to check in at Osen & Hunter's garage at San Jose. Those taking part in the race will be divided into groups of four, irrespective of the machine used, and prizes will be awarded the winners.

INCORPORATED and having a membership of 150 members, though organized only a few weeks, the Buffalo Club has jumped right in among the leaders in the motorcycle organization field in the United States. The originators of the club are delighted with the progress it is making, and their enthusiasm is such that they hope, in fact, they are determined, to enlist every rider in the city by the opening of next season. The club is now arranging to lease a centrally located home. The Buffalo boys have joined with the Rochester and Syracuse clubs with a view to holding tri-city meets Decoration Day, Fourth of July and Labor Day. The club colors are gray and maroon, and suitable emblems and pins, as indicated by the illustration, have been designed by Mr. Nevins.

* * *

MEMBERS of the New Jersey Club, Newark, N. J, held their December meeting in their new clubrooms, at 18 New street. There was a big turnout of the members to inspect their new quarters, and a general good time was had. The annual election of officers of the club was held, and it was a spirited affair. Herman C. Page was elected president over W. P. Stevens, the present incumbent; George Riechey was chosen vice-president; George Post, treasurer; Oscar Smith, financial secretary, and Carl W. Bush, recording secretary. New road officers were also elected for next season, as follows: Road captain, George Riechey; first lieutenant, George Fawcett; second lieutenant, Clarence McClellan. The finance, touring and contest committees will be appointed by the new president at the next meeting.

* * *

MEMBERS of the San Diego Club held their annual election and banquet the fifteenth of last month. The following were chosen to conduct the affairs of this prosperous club during 1910: F. W. Downs, president; A. E. Lillicrap, vice-president; Frank E. Copley, secretary; C. A. Sheppard, treasurer; James Urquhart, captain; C. F. Bhuschi, lieutenant. F. W. Downs, the new president, succeeds H. L. Northern in that office, and the remaining officers, except the lieutenant, were re-elected.

George W. Fenner, captain Syracuse (N. Y.) Motorcycle Club, and twenty-five members of the club from a flashlight photograph made by Captain W. Fenner at his home at the celebration of the first anniversary of the club.

FEDERATION OF AMERICAN MOTORCYCLISTS

A. G. SCHMIDT, F. A. M. Commissioner for Pennsylvania, reports the appointment of the following local commissioners: Wilkes-Barre, B. F. Conner; Mount Hope, John Hull; Altoona, Abe Cohen; Harrisburg, E. L. Watson; Carnegie, E. J. Kuenzig; Erie, C. H. LeJeal; Pottstown, John Mayo; Johnstown, W. H. Cullers; Philadelphia, Alex. Klein; Pittsburg, L. M. Johnson; Greenburg, A. P. Knight; Reading, H. C. Becker; Lancaster, H. R. Williams; Hyde Park, John M. Cline; Allentown, Lloyd G. Taylor.

H. C. Dean, New Hampshire Commissioner, reports the following appointments in his jurisdiction: Newport, F. E. Bronson; Winchester, Glenroy W. Scott; Marlboro, Fred C. Lewis; Swanzey, Leander Page; Hinsdale, C. E. Cramer; Dover, Ralph L. Kimball.

Massachusetts Commissioner, W. F. Mann, announces the following appointments: Springfield, E. B. Mayforth; Worcester, Ira C. Coombs; Greenfield, H. C. Wing; Needham, John McDowell; Malden, Arthur E. Morton; Beverly, J. F. Kilham; Cambridge, W. L. Potter; Marlboro, R. F. Leonard; North Attleboro, J. G. Jewett; Fall River, J. W. Newton; Orange, G. M. Pratt; Northfield, J. W. Barber; Warwick, J. M. Harris; Waltham, Harry W. Robinson; Attleboro, George W. Stevens; Lowell, Geo. H. Bachelder; Dover, A. G. Meacham; Taunton, Felix P. Beauvais.

The following appointments have been made by E. M. Estabrook, Commissioner for Maine: Machias, H. O. Templeton; North Anson, A. G. Williams; La Grange, L. G. Snell; Brewer, Adolphe Beaupre; Bangor, Ralph E. Bicknell; Bethel, Irving L. Carver; Hermon Pond, Elton F. Chapman; Hebron, E. C. Teague; Portland, Harold Moore.

Mr. B. A. Swenson, Rhode Island Commissioner, reports the following local commissioner appointments: Pascoag, J. Herbert Bailey; Portsmouth, B. F. Manchester; Pawtucket, Clifford H. Frazier; East Greenwich, Elmer L. Stewart; Providence, Roland I. Burlingame; Carolina, Fred Hoxie. Harold Fletcher, New York Commissioner, sends the following names: Buffalo, W. Q. Cramp; Long Island City, A. C. Klages; Binghamton, Burt Terwilliger.

C. M. FRINK,
Pacific Coast Vice-President.

* * *

That the Pacific coast district of the F. A. M. is at the same time hard and easy to organize is the opinion of Vice-President C. M. Frink, of Los Angeles, who writes us:

"It is easy for the reason that nearly all members, and in fact nearly all the motorcyclists of the district, are centered in one state, namely, California. It is hard for the same reason. Some of the States have only one F. A. M. member and the chances are that he lives in some little town on the desert away from any opportunity of doing real good. It is next to impossible to organize a state where the one or two members take little or no interest in F. A. M. affairs. But with the State of California things are entirely different. Right in the two cities of Los Angeles and San Francisco there are enough good, live members to raise hopes of great things in the way of new membership.

"I put the city of Los Angeles first because the L. A. M. C. is the largest and best organized body of motorcyclists in the world, and their interest in affairs of the F. A. M. is almost as keen as in their own club. They are a live bunch and it is mostly due to their efforts that the Pacific district is so well organized. San Francisco is a good second. The club has a number of live members who will without doubt get busy and increase the F. A. M. roll here to goodly numbers next year."

* * *

WITH a view to provide means to prevent abuses of the F. A. M. competition rules, Secretary Le Roy Cook is now at work classifying present and prospective racing men. To each one of these he has sent a copy of the rules and the following letter, which explains itself:

"I am sending you herewith a copy of the new F. A. M. Rules for Competition. You should thoroughly familiarize yourself with them. Read especially Article V, on pages eight and nine. It is absolutely necessary for the F. A. M. to classify you in one of these three classes. Will you therefore write to me at once? The following form, on a postal card, is all that is necessary:

"'I am eligible to compete as an (insert Amateur, Trade Rider or Professional), according to the F. A. M. rules. My number is ......'

"You must be registered in one of these classes in the office of the chairman of the competition committee. You cannot take part in any event until you are so registered, and unless you have complied with this request before January 1, 1910, you will forfeit all prizes you may win. So please sit down right now and write the necessary information on a card and mail it at once. Your prompt attention in this matter will greatly aid us in completing the records."

* * *

IN view of the fact that New York City embraces such a large territory, F. A. M. Commissioner Harold Fletcher, 349 Bainbridge street, Brooklyn, has decided to appoint several local F. A. M. commissioners. It must be admitted that residents of New York State have a great deal to thank the F. A. M. for, inasmuch as it was through the efforts of this body that riders in this State do not have to pay any license or carry any hideous tags, such as are compulsory elsewhere. This helps the sale of motorcycles in this State, and it is to the dealers' interests to try to get their customers, or prospective customers, to join the F. A. M. and help along the good cause. Every metropolitan dealer should be willing to become a local commissioner and thus boom the F. A. M.

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1910: "HERE'S HOW!"

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April	1	4,000	Oct.	1	4,600
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May	1	4,100	Nov.	1	5,200
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RETROSPECT AND FORECAST

IT is no exaggeration to declare that the New Year finds the motorcycle trade and sport in their healthiest condition, firmly established and hopeful. The "rah-rah" years have passed, and a fund of more or less necessary but always helpful experience has been drawn upon to build the manufacture and sale of machines right upon the rocks of sound business principles. The trade is better organized than ever before, and a more energetic and intelligent class of agents, wonderfully optimistic, are prepared to work hand in hand with the makers. Then, too, the sport has raised its standards, and public prejudice—a most serious obstacle to its growth in popularity—has been allayed. The F. A. M. is beginning to do the work for which the organization came into being, while individual riders are everywhere learning the value of moderation and a decent, sensible regard for the rights of others. These are the most important signs of the times in so far as they have to do with motorcycling in the United States. There are, of course, circumstances which are not so auspicious—the lack of capital in some instances, the attitude and the practices of unfair and irrational lawmakers, the competition of other sports and other conditions which adversely affect prospects which would otherwise be brilliant. But the existence of practically every drawback is due to a previous lack of public interest, which in its turn has been caused largely by imperfections in the machines themselves. For, in finally analyzing the situation, one must admit that quality in the material and the workmanship which supply the finished product are the all-consequential factors, the things which determine practically everything. And since it is right here that the greatest 1910 advances have been made, one is fully justified in forecasting by far the biggest and most eventful year in the history of the sport.

Our forecast of the New York Show should serve to indicate in a general way the trend of ideas among the manufacturers. Recognizing the existence of certain drawbacks, they have proven themselves willing to shoulder their part of the responsibility. They have done much more than that, anticipating many needs and then filling them to the very best of their ability. While they are putting better material into their 1910 models and adopting tried and true principles in general design, they have applied many new ideas as to details which enhance the rider's enjoyment of the sport. The trade has emerged from its boyhood period into the age of understanding, figuratively speaking. It is more respectful than ever of the requirements and, as well, the desires of the riding public, and we believe the latter will assuredly mark its appreciation in no uncertain manner. Therefore, in wishing a prosperous New Year to all who are identified with the trade and the sport we do so with the almost certain belief that the wish will be realized.

THE TRADE ORGANIZATION.

THE Motorcycle Manufacturers' Association will meet during Show Week. This organization has progressed slowly, but surely, since its formation a year or so ago. Perhaps it progressed slowly accidentally-on-purpose. Just what it has accomplished no outsider knows, for its meetings have been secret and nothing has been given out. If this organization has set the Thames or any other river on fire the conflagration was not noticeable. But for aught we know the organization may have accomplished a great deal of real good; but, as we have said, only the members can judge.

During the past year the motorcycle trade has been strengthened and expanded. History records that there have been motorcycle makers in the past who, because of financial weakness, and, in a very few cases, because of a natural crook in character, have been guilty of shady methods. These were not admitted to membership in the makers' organization; for it must be remembered that membership in that body implies, and in fact guarantees, strength, financial responsibility and the square deal.

But within the twelvemonth conditions have somewhat changed. Many of the weak firms and the crooked ones have been eliminated; some of the weak firms have been strengthened with new capital, and it must be remembered that there are half a score of newcomers of high commercial repute. No doubt the association will glean a number of new members from the old, strengthened concerns and from the new concerns.

We, however, beg to suggest that it is now time for the organization to make an attempt to include in its ranks *all* motorcycle manufacturers of decent repute. Provision should also be made for the accessory people. Many of these latter are also in the boat and car trades. In these two industries there are already strong organizations. The automobile field has an exclusive accessory association, while the boat trade has a national trade organization which takes care of not only the boat makers but also the engine manufacturers and the makers and sellers of equipment, accessories, etc. We are not familiar with the details of the automobile accessory association, having never had occasion to study it; but we do know that the boat trade organization, largely through holding their own shows in New York, Chicago and Boston, had a capital of $10,000 after the second year of organization. Unless we are greatly in error, or unless the money has been put out in dividends or to some other good purpose, this organization must now have a splendid fund in its exchequer.

This boat trade organization is worthy of close study on the part of the motorcycle folks. Its constitution, by-laws and general plan and scope should be carefully studied and in many points imitated. It is a strong and successful organization, and membership in it is a guarantee of good faith in every respect. We hope that at the forthcoming meeting of the Motorcycle Manufacturers' Association a movement for expansion will be at least inaugurated.

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THE *Evening Sun*, under date of December 28, had an article to the effect that the wolves which inhabit the dense forests surrounding the purlieus of Chicago, driven to it by hunger and cold, broke into the city, tried to eat a few inhabitants and terrified things in general, until they were driven away from the Auditorium annex and out Michigan Boulevard by a posse of men armed with shotguns. When we first saw this wire we thought it referred to Chicago's Common Council, Board of Aldermen, or whatever they are.

This eminent and erudite body have just passed an ordinance imposing a tax of $10 on motorcycles. It is to be an *annual tax*. The ordinance was rushed through, sent to the mayor, who forthwith signed it. This is another example of modern piracy. In the old days, a freebooter who wanted to live without industry applied to Captain Kidd or enlisted under the banner of Robin Hood, Dick Turpin, or some other merry cutthroat. Now, they simply go into public life and become aldermen, assemblymen or senators; above all they aim to be senators, for this is said to be the richest and softest graft of all.

The Chicago riders and the trade have banded together and engaged a lawyer to reopen the matter. This tax is simply outrageous, and is in line with the general trend of things of today, which is to tax everything and anything. Nowadays a man is taxed from the moment he draws breath until the mortal vestment is laid away. In fighting this robber tax the motorcycle riders of Chicago will drive home the following facts, which, they hope, will have a salutary effect upon their lawmakers:

(1) The motorcycle does not damage the city streets.

(2) Such an ordinance would deprive many people of beneficial exercise.

(3) No municipality in the country has ever levied such high taxation.

(4) The majority of the riders are under twenty-one and exempt from taxation.

(5) The motorcycle industry, representing millions of dollars, will be seriously injured by this tax.

(6) Motorcycles are used only seven months in the year, but are taxed for twelve months riding.

(7) The motorcycle is a pleasure vehicle and should not be taxed.

(8) A similar ordinance was passed years ago affecting cyclists, but was repealed.

(9) It is believed that the taxation of motorcyclists is unconstitutional under the "vehicle law." The Supreme Court of Illinois in construing that law clearly "excepts motor-bicycles."

But whoever heard of an alderman of Chicago, New York or elsewhere knowing anything about supreme court decisions. The studies of aldermen are confined to Hoyle. Their worship is concentrated on Pocket. Their idea of civil liberty is embodied in the famous shibboleth: "T'ell with the Constitution."

* *

WE printed 104,350 copies of MOTORCYCLE ILLUSTRATED in 1909. Judging from present headway we will average 7,500 copies per issue for 1910—it may be more, and 24 times 7,500 is 180,000 copies, which will probably be the absolute minimum for 1910. Our sales and subscription records always on view.

OUR January 1st issue of last year had twenty-seven pages of advertising, whereas this year it has over forty. It shows the growth of the trade and, of course, our growth. Our January 1st issue of last year had fifty-nine advertisers; this year seventy-three; a gain of fourteen. But of the fifty-nine advertisers in our January 1st issue of last year eleven have gone out of business, so that the gain of new blood is twenty-five advertisers. The extraordinary feature of this issue is, that, barring the firms who went out of business, the entire fifty-nine last year are also in the January 1st issue of this year. There are three exceptions—two one-inch advertisements of castings manufacturers, and the quarter page of the Boston Show. In other words, of all the firms who remained vitally in this business we lost only two inches, comparing this issue with the same issue of last year. This shows remarkable confidence in the paper.

It is a summary of the history of the entire trade to glance over the firms who have disappeared and the causes of the same, which are as follows: 1, no attention to business; 2, lack of capital; 3, was only a side-line and was stopped; 4, lack of capital and business ability; 5, article not adapted for motorcycle use; 6, a feeble concern which easily petered out; 7, article not adapted to motorcycling; 8, firm too busy with the automobile business and dropped the motorcycle business; 9, case of common dishonesty; 10, an importer without capital; 11, now in the courts being sued by its creditors; 12, a case of old age; 13 and 14, two castings manufacturers who probably found themselves too busy to cater to motorcycling.

* *

THE show season is on. New York right now, Chicago in February, and Boston in March. This is the time when you grab your suit-case and jump on the job. For the next three months all salesmen and sales managers will be put to it to do themselves credit. The show business is a terrific strain. If you think you can mix sport and dissipation with your show work you are in the wrong street, and you'll regret your experiment.

The grind of the shows is a serious proposition. The wise man will go at it the same as an athlete goes through a Marathon. He will live wisely and well, and will come out of the thing a top-notcher and in good shape.

These shows develop two types of salesmen. One is the clean-cut chap who hikes early to his hotel, "hits the hay" betimes, eats wisely and develops an affection for the bath-tub. The other kind live any old way, are carried off their "pins" by the glitter and good-fellowship of the thing, wear a foot-path to the cafe and spend the wee sma' in the uncanny streets that reach out from the Great White Way.

The first type mentioned become principals; the second remain one-night stand folks until they are shunted out of the way by younger blood.

* *

IN this issue we publish a table of the complete list of machines to be shown at Madison Square Garden, with the specifications and equipment of the same. In the next issue we intend to add to this, so that every motorcycle manufactured in this country will be represented. In brief, this means that the new table, to be printed in our January 15th issue, will list every machine made in this country.

* *

ON January 1, last year, we printed 3,250 copies. On January 1, this year, we print 5,850. That is because we *push* the circulation. Some publishers hold it back, *after a certain point;* other publishers hold it back *all the time*. A few broad publishers push it every day in the year. That's our class.

* *

S. C. RAGAN, JR., speaks with no uncertain sound. He's of Vicksburg and he sings the song of the South. It's clarion-like. All makers should grasp it. It's on a trade page.

DERKUM INJURED WHILE RACING DE ROSIER

DURING the fastest mile of one of the many fast motorcycle races at Ascot Park, Los Angeles, a week ago Sunday, Jake De Rosier and Paul Derkum were both thrown from their machines, over fifty feet through the air, and were picked up unconscious, but with no bones broken. The good luck that has guarded the men who toy with death at Ascot was with them again. De Rosier escaped with nothing worse than a few scratches. Derkum did not fare so well. While he got on his feet as soon as he regained consciousness and walked about the track, he was forced to take to his bed, and his doctor says he is much worse hurt than at first supposed. A hole was driven through his skull above the eyes, the muscles of his right leg and arm were torn loose and he was otherwise cut and bruised about the body. Nevertheless, his early recovery is expected.

The accident happened at the three-quarter post in the last lap of the ten-mile professional race, and De Rosier, who was leading, fell first. Derkum's motorcycle struck the leading machine immediately after it had skidded out from under De Rosier and both riders were thrown to the fence outside the track. The men were judged to be traveling at the rate of a mile in 53 seconds when the accident occurred, De Rosier on his Indian and Derkum on a Thor.

De Rosier won the ten-mile professional race in the fast time of 9 minutes and 23 seconds, but his victory was protested by Derkum, who claimed that when he tried to round De Rosier on the far turn, the Indian rider put on his brake and forced Derkum to the outside of the track. The protest was dismissed, because De Rosier's machine had no brake. De Rosier assumed the lead at the start in each of these races and Derkum was forced to follow at his heels. In the first race he failed to pass De Rosier, but when the accident happened in the five-mile event he was about to do so, although De Rosier might have won the race on the straightaway.

M. J. Graves on an Indian won all of the five races he entered. In the five-mile race for the F. A. M. championship and medal, Graves won easily in the excellent time of 4 minutes and 44 seconds. Frank Lodge on an Indian was second and J. Howard Shafer was third. Each received medals, gold, silver and bronze, respectively. This makes Graves the Western champion in this event. Graves further distinguished himself by making one lap of the championship race in 55 seconds flat. H. W. Shafer won the thirty minute race in easy fashion on his Indian, covering thirty miles during that time. Summary of the events:

Two miles, novice—George Graham (Indian), won; J. E. Berryman (Excelsior), second; Clarence Briggs (Excelsior), third; time, 2:37. Three miles, stock machines—Irwin Knappe (Indian), won; R. Niedenhauser (M.-M.), second; Frank Montgomery (Excelsior), third; time, 3:44 2/5. Five miles, free-for-all—M. J. Graves (Indian), won; Frank Ward (Indian), second; Charles Balke (Merkel), third; time, 5:08. Five miles, F. A. M. championship—M. J. Graves (Indian), won; Frank Lodge (Indian), second; Shafer (Indian), third; time, 4:44. Five miles, club members—M. J. Graves (Indian), won; Clarence Briggs (Excelsior), second; R. Niedenhauser (M.-M.), third; time, 9:23. Three miles, five-horse power—M. J. Graves (Indian), won; Buneman (Indian), second; Roy Barnard (Indian), third; time, 3:12. Ten miles, free-for-all—M. J. Graves (Indian), won; Shafer (Indian), second; Frank Lodge (Indian), out; time, 9:35. Slow race, fifty yards—Won by W. T. Carter (Minneapolis); time, 2:50. Five miles, professional—Arthur Mitchell (Merkel) and H. Whittler (Indian), dead heat. Derkum and De Rosier, thrown. Half-hour race—H. W. Shafer (Indian), won; A. Ward (Thor), second; Frank Montgomery, third; thirty miles covered by the winner.

P. J. Derkum.

* *

LOS ANGELES, Cal, December 29.—There are two motorcycles for every sunbeam in Southern California. In no State in the Union are the two-wheeled "chuggers" more popular than here. More than 5,000 motorcycles are ridden in this part of the country every day in the year. There are more than 3,000 in Los Angeles and its immediate environs, nearly 1,500 carrying numbers showing that the owners reside within the city limits. As many more machines are ridden by persons just outside the limits. The climate here makes it possible to ride almost every day. The warm, moist air makes gasoline more volatile, with the result that autos and motorbikes have been proven to be three seconds to the mile faster here than in any other place in the country.

Los Angeles has one of the largest board (saucer) tracks and two of the fastest mile dirt tracks in the world. Agricultural Park track, when sprinkled with light oil, is, according to Barney Oldfield, absolutely the fastest and safest flat track in the country. He made many of his mile records there, and it and Ascot Park still hold nearly all the mile dirt track records for motorcycles, made by Freddy Huyck, Paul Derkum and Howard Shafer.

Among the Los Angeles racing men who have earned national reputations during the last two years are Charles ("Fearless") Balke (Merkel rider), Raymond Seymour (Reading Standard), both of whom rode at Indianapolis and at other Eastern tracks; Eddie Lingenfelder (N. S. U.), professional, who toured the East all last summer; M. J. Graves, (Indian), amateur, holder of the Coast record mile, done on an N. S. U. machine in 45⅗ seconds; Walter Collins, amateur, now of S. F.; Elbert E. Earhart (Thor), amateur; J. Howard Shafer, the big policeman; Erwin Knappe, Frank Lode, Charles Ward, "Red" Dunham, Byron Bunneman and Arthur Mitchell, professional. Then, of course, there is Derkum, a daredevil, and a great local favorite. Derkum has also made a reputation for himself as a clever trick rider.

QUESTIONS & ANSWERS

THE TRANSMISSION PROBLEM.

J. S. DEYSHER—Experts have as yet failed to agree regarding types of transmission. This is true at least of American builders, although the belt drive enjoys a monopoly of public favor in England and on the continent. Here in this country, however, although the belt-driven machines are decidedly in the majority, such standard makes as the Indian, Thor and Reading Standard are fitted with chains. It would require several pages in which to properly discuss the respective merits and drawbacks of the different types of transmission and, of course, we cannot devote this space to argumentative matter. Some time ago we published an excellent summarization of transmission problems, and will be glad, if you so desire, to send you a copy of the paper containing the article in question.

* * *

TWO STROKE ENGINE.

J. W. BEEBE—We would advise you not to attempt to fit your machine with an engine of this type—at least, not yet. The two-stroke is being tried out in two or three English models, though none but the manufacturers of these machines is willing as yet to vouch for their utility when applied to motorcycles. If, however, you are determined to keep posted regarding this type of engine you can do so by carefully studying the motorboat and gas engine papers, of which there are any number. At the present time the two-cycle field, from the motorcycle standpoint, is valuable only for experimental purposes.

* * *

LICENSE FEES.

R. H. LEFFLER—The license fee in Pennsylvania, under a law which has just come into operation, is $3 per annum. License tags, a headlight and horn or bell are required. If you intend to tour through that State you should communicate with the Commissioner of Motor Vehicles, at Harrisburg, requesting a copy of the motor vehicle law passed at the 1909 session of the Pennsylvania Legislature. No license fee is exacted of motorcycle riders by the State of New York, nor are any tags required. The rider is expected to carry a light, however, and is bound by the "rules of the road."

RECORD ON HALF-MILE DIRT TRACK.

DALE G. TROWBRIDGE—According to our records, the fastest mile ever made on a half-mile dirt track was ridden Nov. 28 of last year by Harry Seymour, at Olympic Park, Newark. Seymour rode a Reading Standard, and his time was 1:08. Such records as these, however, are not official, not being recognized as records by the F. A. M. On this account we cannot vouch for our figures. If any of our readers know of authenticated mile records on half-mile dirt tracks, which better this performance of Seymour's, we should be glad to hear from them, and share the information with our readers.

* * *

TO CONVERT FROM CHAIN TO BELT.

W. H. RUNYAN—In order to convert your chain machine into one transmitting its power by a belt drive, you will have to provide a new crank shaft, wider rear forks and, of course, a rear pulley. As for the size of the latter, it should be the same as is fitted on other standard belt-driven machines of the same horsepower rating as your own. However, remember that the details of this problem of conversion must be left to a first-class repair man, unless you yourself have had some experience in that kind of work. Even then, it will not be an easy task.

* * *

WHEN THE EXPLOSION SHOULD OCCUR.

WILLIAM HOFFMAN—If you are seeking to obtain as much speed as possible out of your machine, the spark should be set so that the explosion will occur a fraction of a second before the piston reaches the top of its stroke. Perfectly smooth running may be obtained, however, if the explosion takes place at "top center" or even just as the piston is starting on its downward stroke.

* * *

LADIES' MOTORCYCLE.

A. WIGHT—You cannot expect to obtain a ladies' motorcycle weighing much less than 160 lbs. The English Scott is built with a drop frame, but it cannot be regarded as a lightweight. It is operated by a two-stroke engine, partly watercooled.

APPEALS TO FT. WORTH RIDERS.

I AM a motorcycle enthusiast to the extent of being almost a "crank," and I desire to extend to you my hearty congratulations on the great work you are doing through the columns of your splendid magazine. I became a rider last July, and often have had occasion to run over to Dallas, thirty-three miles East of here, which I always make in less than one hour and thirty minutes, good time considering the condition of the roads. As a rule our roads are bad, with a few good stretches mixed in with the bad places, but fine time can be made over the smooth places.

I ride an M. M. single, and consider it a great hill-climbing roadster, as I have ridden up ten per cent. grades over half a mile long and without any pedal assistance or trouble. I regret that most of my trips are made alone, as the riders here seem to be rather unsociable. However, Mr. Peake and myself are going to co-operate to see if we cannot form a club, to at least get acquainted and to have some "sociability" runs. Any Ft. Worth reader seeing this and wanting to "get in," may find me at the office of the *Star Telegram*.

Ft. Worth, Tex. H. A. SIMPSON.

THE SPORT OF KINGS.

ON page 13 of MOTORCYCLE ILLUSTRATED (December 15 issue) I noticed an editorial in which you stated that no sport-loving individual was too 'high browed" for the motor propelled two-wheeler. Perhaps it will be of interest to your readers to know that ever since November, 1908, the Austrian Imperial and Royal Altesse, Archduke Francis Joseph, has been riding a motorcycle. Many other "high-toned" ladies and gentlemen are quietly using the motorcycle with delight and pleasure. I know that the motorcycle is not only the king of the road machines, but also the mount of kings.

Reading, Pa. MARCEL KRIEGER.

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VINTON PIERCE sends us a photo and an interesting communication. His letter, however, fails to include the name of the city in which he lives. He will understand why we need this before we can publish his letter and picture.

* * *

CAN any of our readers furnish us with the name and address of a firm manufacturing aluminum solder? A California rider seeks this information.

ENAMELLING AT HOME

By R. C. Laurie

MANY riders live miles away from an enamelling shop, and therefore work such as this has to be done at home, poorly, as a rule, for an amateur with a paint pot is about as handy as the average woman on board a racing yacht. Now, while I do not claim that the finish on a machine repainted at home can be as good as that turned out by the factory, yet if the following instructions are carefully followed the general result will be quite surprising to the novice.

First of all, the machine must be taken to pieces, leaving the parts requiring paint, such as the frame, tank and wheels, free from obstruction. These parts should then be carefully cleaned of dirt and, to insure a really good job, the old enamel should be burnt off with a spirit blow-lamp although one must be very cautious in dealing with brazed joints on the frame, the small brazed clips and tank joints. Then the parts should be finished with emery cloth and wiped free from dust. Now select a light and airy place in which to paint the parts. Remember that only daylight is suitable for painting, as under any artificial light one is apt to miss many places, producing an uneven surface and spoiling the job. The paint room should be free from dust and, if possible, in a secluded spot. It is a most important point to select a place which has no flooring above, as people walking across that floor shake down a great quantity of dust. I recently saw a really excellent piece of work utterly spoilt by dust falling from the ceiling. A skilled German head-painter at a well known automobile factory never lets even the buyer of a car look at it until it is dry and ready for the road. The finish and gloss of factory enamelling are what is known as a stoved finish, that is, the enamel is "baked" on in a large oven and thus dries evenly with a hard glossy surface, some first-grade work being even hand-polished after this process. As no oven at home would be anywhere near big enough to hold the various parts it is necessary to use other methods.

The priming coat should be of "flat" paint as near the required color as possible, but this is not absolutely essential. as it's function is merely to act as a holding surface for the finishing coats of enamel. The priming coat should be carefully laid on by stroking the brush one way, making the paint run as evenly as possible. This is an important detail, as most novices put on the paint too thick. The best way of getting at the frame for painting is to hang it by a string or wire from the ceiling.

In buying paint for the finishing coats, get the very best enamel procurable. Personally I prefer coach enamel and can recommend it from experience. First class paint and good brushes cost only a few cents more than the cheaper kind and give more than double the satisfaction, so the deduction is obvious. Stir your enamel well before using and do not allow the slightest thickness to exist in the can before applying the paint. Affix the can lid when you have done with the paint for the time, as this will prevent skimming over. Clean the brush or brushes thoroughly every time after using. I have found that gasoline is about the best for cleaning brushes. For the job which I am describing one needs varnish for the finishing coat, and it is important that this should be the very best "coach" varnish, as colorless as possible.

Now apply the enamel on the priming coat. Take a brush half-full of paint; too full is bad, as one is apt to leave lumps of paint, making it very difficult to even the surface afterwards. On the other hand, too little paint on the brush is apt to give the frame a patchy appearance. Run the paint on evenly, brushing one way, wherever possible, with long strokes. It is best to give the paint several days to dry. When the paint has a good, hard surface and is not sticky to the touch, take some fine steel wool, rub the gloss off the surface *lightly* and smooth any unevenness in the work. This can also be accomplished with a felt pad and powdered pumice which has been slightly damped. In any case great care should be taken to rub the surface lightly and evenly and not to cut too deeply through the surface of the enamel. When one buys steel wool for this purpose get the very finest wool, as certain steel wool is adapted only to very coarse work. After the rubbing process wipe all the parts free from any dust which may have clung to the surfaces and give the dust plenty of time to settle, so that it will not get on the next coat of paint. It will be found best to thin the enamel with a little turpentine for the next coat, which should be laid on even more carefully than the first. Again, when the paint is thoroughly hard and dry the work must be carefully rubbed. I find it best to give any paint work of this type three coats of enamel and three rubbings as, although the job may take longer, the paint wears better and will not scratch or chip so quickly, provided the coats have not been laid on too thick.

After the final coat the work has to be very carefully rubbed and wiped free from any speck of dust. Now for the varnish, which is applied with a clean brush in the same way as the enamel, only with far more care, for the varnish must be applied *thinly* and worked well into the paint, while the brush should be stroked evenly in one direction. For a light colored work such as gray, a little of the enamel should be mixed with the varnish, otherwise the latter will give a brownish tint to light colors.

Did anyone say striping? Don't try it! I once obtained a striping brush and ruined the looks of a glossy tank. It is only an expert who can tackle a job of striping. The difficulty is not in keeping a line straight but in getting a line the same thickness all of it's length. Take the work to a painter to stripe before the varnish coat is applied if you like, but do not be persuaded into attempting the whole task yourself.

Give every part time to dry thoroughly hard before attempting to reassemble the machine. To smarten up the cylinder lamp-black and turpentine make a good, lasting paint with a dead surface, or stove polish put on wet and not polished is good, but avoid anything glossy for the cylinder. It may cause overheating as the polish denotes the presence of a scaly coat which has the effect of filling up the pores in the metal.

The muffler and exhaust pipe can be also treated with stove polish. The base chamber, if of cast iron, should be enameled and finished in just the same way and in the same color as the frame, and a careful man may finish the horseshoe of the magneto in like manner, taking care to disturb nothing and not to get the "gizzards" of the machine stuck up with blobs of paint. If the crank case is of aluminum, it should be cleaned with any good "hand-cleansing" dope which is supplied with plenteous pumice powder, and then brightened up with a good non-acid polish. All plated parts should be polished, but *not* scrubbed, with the pumice soap. I hold no brief for any polish manufacturer but some I have stolen from a friend's automobile garage has all the others beaten. This is called Monarch and is used mostly in automobile show rooms.

After the machine has been reassembled, new wiring fitted etc., I'll be willing to bet a ducat the size of a Packard hub that my fellow craftsman will not hold to the old idea of selling the jigger.

TIPS AND TOPICS

By the Veteran.

I NOTICE that one of our foreign contemporaries is conducting a series of contests on the "trouble" question, the answers generally being extremely instructive. Recently the competition called for answers on the causes of "knocking," and the following clever theories and solutions were the winners: A knock or clink in the engine is caused by pre-ignition, pre-ignition implying that by some means the explosion in the cylinder has been brought about before the piston is in the correct position to receive it, which should be when the piston is about to descend on the power stroke. Now, as there is a slight interval of time between the spark and the explosion (as also, in battery and coil ignition, between the completion of the electric circuit at the contact breaker and the spark in the plug), it is necessary when an engine runs at high speed to produce the spark before the explosion is actually required, so that the explosion is just complete as the piston reaches dead center. If, however, the spark is set early or "advanced" and the engine is allowed to run slowly, the piston meets the explosion as it travels up on the compression stroke, and is forced either to *compress the explosion* or to reverse its motion, in the case of the engine running very slowly and without load. This is a pre-ignition easily brought about by making the engine pick up on full load without first retarding, and its first symptom is a knock in the engine. This knock is not well understood, but probably is of the nature of a detonation.

To take a parallel case: If a piece of loose gun-cotton is placed on an anvil and a lighted match applied to it, the cotton flares up noiselessly because there is ample space for the gases instantly to expand; but if the gun-cotton had been struck with a hammer there would have followed a powerful detonation, not to mention possible damage. Now in the case of the gasoline engine, although we are dealing with gaseous explosives, when the explosion occurs, when the piston is able rapidly to recede from it there is practically no sound, because the gases can easily expand; but when the piston in its upward journey strikes the explosive, a slight detonation occurs, which through the metal of the cylinder sounds like a knock or clink.

Knocking may also be produced by the spark-plug points being too thin, or projecting too far into the cylinder, and, becoming incandescent, firing the charge prematurely. The carbon deposit may also become incandescent under continuous overload, this also producing pre-ignition. Stray particles of carbon often cause very puzzling cases of knocking, this sometimes occurring after the cylinder has been cleaned out and not properly examined for these particles.

The whole case may be briefly summarized as follows: (a) Keep cylinders and pistons free from carbon deposit, especially in high compression engines; (b) use spark plugs with stout electrodes; (c) see that plug points do not project too far into the cylinder; (d) after cleaning out cylinders, see that there are no loose pieces of carbon left behind.

* *

DRIVING with retarded ignition is often the cause of burnt-out valves and scaled seatings, not to mention fouled plugs. If a crawl does become necessary, always be sure to reduce the gas supply to a minimum. Here is another place where the two speed gear scores. One often has to thread one's way through several miles of city traffic, driving slowly all the time. Now, as I have just pointed out, this long period of driving with retarded ignition has a bad effect upon the engine. The rider with a motorcycle fitted with a two-speed gear can throw in the low gear and still crawl through the crowded streets, at the same time allowing the engine to run at its normal speed.

I HAVE a letter from a reader asking for advice regarding the best gear for all-around purposes. Many motorcycles suffer from over-gearing, nor is there any cause for wonder in this. For instance, a manufacturer decides to adopt a standard gear of 4½ to 1 for a particular model, as he finds this to be the best for general use. This is usually decided by an actual road test, though what is suitable to one district is not always best in another. Anyone will bear me out who has tried touring in some parts of Vermont and New Hampshire on a standard gear. I tried it once and was forced to get a local turner to make a templet for a new pulley which I had cast at a local foundry. I chose a gear as low as 6 to 1, and with this I could have climbed the Flatiron Building. It is my impression that the death-knell of the cycling boom was sounded by the high gear craze, and it is to be hoped that the manufacturers of motorcycles will profit by the example. Mind you, I do not advocate 6 to 1 as a standard gear; there are districts where 4 to 1 can be used with ease; but the gear should be suited to the requirements of the rider, and a buyer should be offered the option of two or three. Gearing depends on the power of the machine, its weight and that of the rider, and the locality in which the machine is to be used. Utility should never be sacrificed for mere speed, except, of course, in strictly racing machines.

* *

A FRIEND visited me a few weeks ago nearly weeping over the noise the two-to-one gears made on his machine. He is a stickler for silence, and I only wish there were more like him. We had the gears exposed, and they certainly did sing nicely. This may have been due to incorrect cutting of the gear teeth or perhaps they may have warped. Anyhow, more for the sake of experiment than anything else, we changed them over and the noise was hardly noticeable. I cannot quite account for this, unless the warp was in one particular direction and was corrected slightly by the changing, but even this explanation looks impracticable. There is noise in gears where there is an uneven and intermittent load caused by the lift of the cams, and bearing upon this also is the weight of the valves and the tension of the springs. This gives off a backlash and produces the slumping of the gear teeth. Good designs in gears and gear teeth prevent noise to a great degree, and if these gears are thoroughly enclosed and run in oil, they should be silent in action.

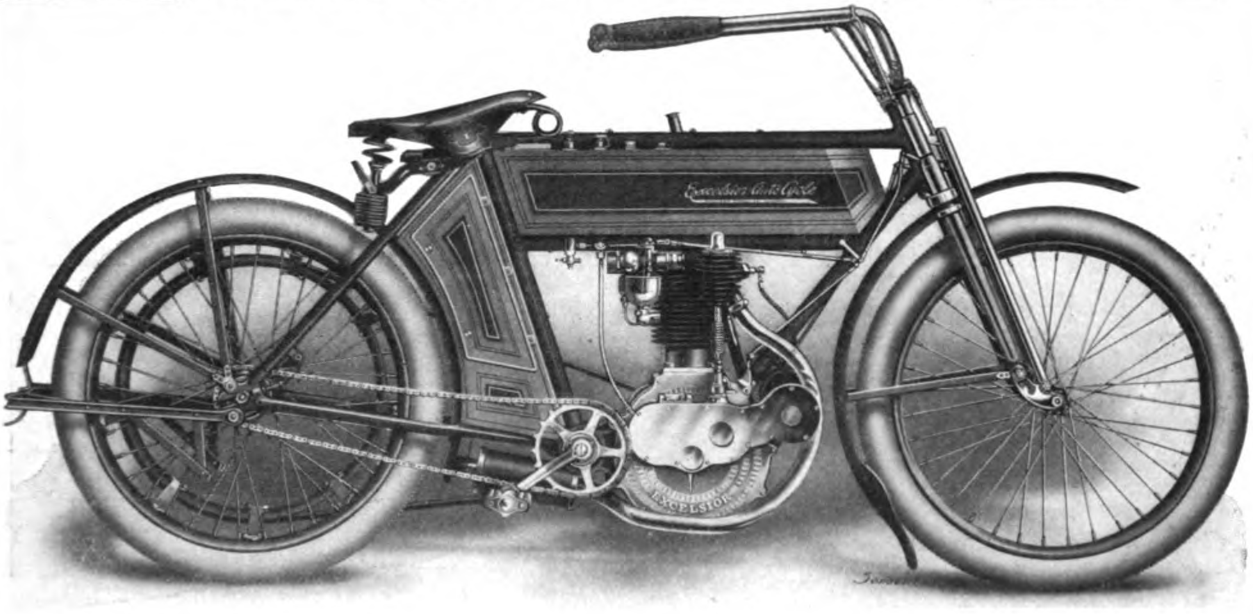
* *

WHEN grinding in valves, don't forget to keep lifting the valve from its seat during the operation. It occasionally happens, when this is not done, that deep grooves or rings are found on the faces of the valves or seats, particularly when a very harsh abrasive is used as a grinding material. If these rings do happen to form, they can be removed if they are not scored too deep, but a very long spell of grinding will be found necessary. Fine emery powder only should be used, finishing the work with crocus powder. If the rings or grooves are found to be scored too deep for removal by this process, then the only thing to do is to send the cylinder to some good shop.

* *

ALWAYS keep the batteries wedged tightly in their box and do not allow them to rattle. Not only is it possible to "short" and damage them if this is not attended to, but there is also a very good chance of the connections jolting loose and causing a minor "stallage," as it were. Battery boxes should be packed, rubber sheeting being good material for this. The best plan is to line the box with this sheeting, attaching it with fish glue.

EXCELSIOR AUTO-CYCLE



BETTER THAN EVER FOR 1910

No product of human skill and ingenuity has ever exceeded the record of the

EXCELSIOR AUTO-CYCLE

Designed and built by men who know, thoroughly tried and proven before being offered to the public, it

MADE GOOD

and has become universally recognized as

The Leader of American Motorcycles

No changes in the 1909 model were found necessary and but few advisable, but we have added such refinements as mechanical force feed oiling system, valve silencer and the lowest saddle position ever attained in a road machine.

Our advance catalog E10 tells all about this and the new

EXCELSIOR TWIN

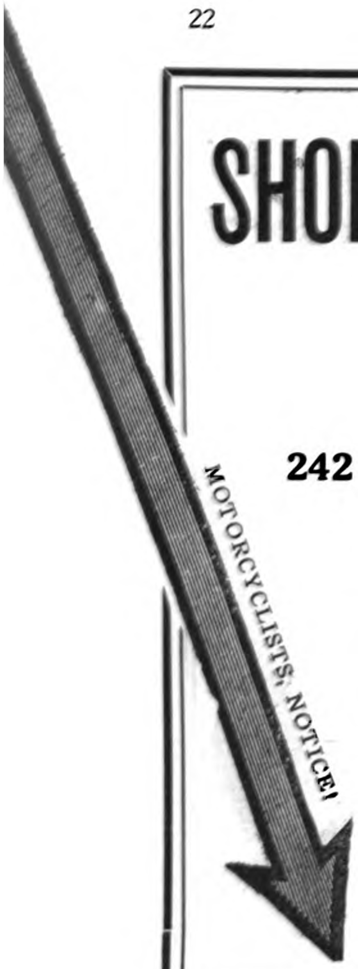
that will excel all other motorcycles as the EXCELSIOR 30.50 excels all other single cylinders.

EXCELSIOR SUPPLY COMPANY

ESTABLISHED 1876

233-237 Randolph Street :: :: CHICAGO, ILLINOIS

STANLEY T. KELLOGG, 2312 Broadway, New York, Eastern Distributor


MOTORCYCLISTS, NOTICE!

SHOEMAKER MOTORCYCLE BELTS

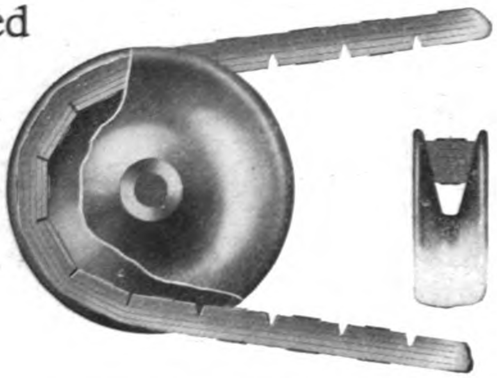
MANUFACTURED SOLELY BY

APEX BELTING CO.

242 CHESTNUT STREET, PHILADELPHIA, PA., U. S. A.

Resist the action of water, oils and gases and are not affected by atmospheric and climatic conditions. Require no dressing of any kind.

Write for Booklet and Prices



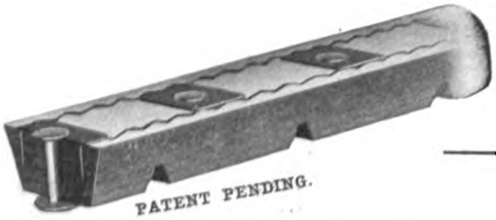
W. G. CROWELL, FORMER CAPTAIN OF SWARTHMORE COLLEGE STAR FOOTBALL TEAM AND ALL-AMERICAN QUARTER BACK WRITES US:

APEX BELTING CO., 242 Chestnut St., Philadelphia, Pa.

GENTLEMEN: I am employed as an electrical inspector of the Philadelphia Suburban Underwriters' Association covering Delaware, Montgomery, Chester and Bucks Counties in Penna., and Camden Co., N. J. The territory I cover on a single Magneto Merkel equipped with your Belt. I had nothing but belt trouble until using your make, and since then have covered 2,500 miles in all kinds of weather.

The Belt is as good as the day it was put on and I expect four times the distance.

Very sincerely W. G. CROWELL.


PATENT PENDING.

ALL BELTS MADE OF

"BEAVER" LEATHER

Tanned from Selected, Imported Hides by a New Secret Process that produces a pliable but exceedingly tough, long-lived leather.

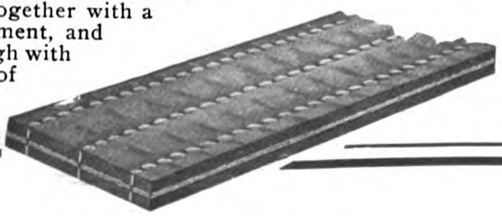
FACTS

OUR BELTS WILL NOT SLIP WHEN WET
WILL OUTWEAR ANY OTHER BELT
WILL STRETCH LESS THAN ANY OTHER BELT

THE SHOEMAKER Non-Stretchable FLAT MOTORCYCLE BELT

Manufactured to meet the demands of those who prefer a flat belt drive. Requires no belt dressing, will not stretch, is strong, pliable and durable.

Not affected by water, oils, gases or climatic conditions. Constructed of two plies of "BEAVER" leather with a ply of non-stretchable razor strop webbing in the center all cemented together with a waterproof cement, and stitched through with three rows of waxed thread



A VERY BRIGHT OUTLOOK.

"THE outlook for the motorcycle industry for the year 1910 could not be much brighter," recently remarked a Chicago man in the trade, and who is in a position to speak intelligently. "Since the year previous to the financial panic of 1907 manufacturers have never been so busy, nor have orders for machines been so plentiful; in fact, I believe it is a conservative estimate to place the prospective 1910 increase at approximately 100 per cent. over the business of 1909.

"This may sound tall, but there is no reason why it should not be the case, as a glance at conditions throughout the country generally indicates a prosperous season in all lines of industry. In New England, for instance, which is a great manufacturing center, and where there are large producers of all kinds of machinery, of copper and brass goods and of shoes, woolens, silks and kindred lines, we find everywhere sufficient business to warrant all plants running on full time, and with every prospect of doing so until well into spring.

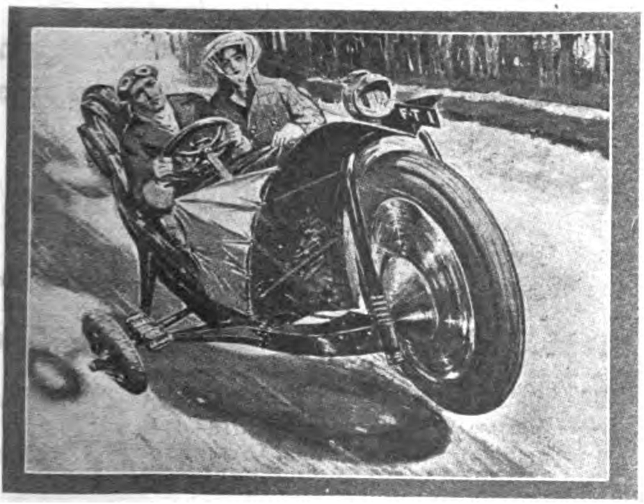
"The same is true of the entire Eastern and Middle West sections of the country, and buyers from the South and from the Pacific Coast are placing orders sufficiently large to keep the factories from which they obtain their shipments busy making deliveries, all of which means that all classes of workers are earning money and are circulating it.

"As an illustration of the conditions that prevail and of their effect, I can name a prominent parts manufacturer who recently told me that he had that very day received a long distance telephone call from a well-known motorcycle concern, some 500 miles distant, urging the delivery of certain parts which were on order, the motorcycle manufacturer stating that he was being pressed by his customers for immediate shipments.

"The present demand for goods from the Pacific Coast precludes any possibility of an accumulation of stock for spring delivery. There has been a gradual stiffening of prices for some time past, and the manufacturer who does not make a reasonable profit and do a satisfactory business during the coming season will have only himself to blame."

* *

THE Milwaukee boys were really surprised to learn that one of their club members, Harvey Bernard, a crack rider, had taken a position with the Wisconsin Motorcycle Company as manager of its Milwaukee branch. The Wisconsin Motorcycle Company are the distributors for the Indian in Wisconsin.



An English Idea—A 50-h. "Sociability."

AN EXCELSIOR
FOR RABBIT
HUNTING

RABBIT hunting a la motorcycle? Why, of course, why not? This photograph is evidence enough that it's quite the thing in the Hoosier State, practicable, good sport and all that. The successful nimrods whose forms and features decorate the cut are the Shepherd brothers, of the tire town of Kokomo, Ind. They use an Excelsior machine.

* *

DR. THORNLEY, Chairman of the Competition Committee, is anxious to appoint official referees in all parts of the country. He wants competent men, men who understand sport and who have executive ability. He wants men who can take entire charge of race meets and who can secure the services of competent judges, timers and scorers.

The success of a meet depends largely on the officials. The events must be run off promptly; they must be scored and judged correctly and timed accurately. At many of the race meets of 1909 the events were in the hands of officials who seemed to have little experience in conducting sports of this sort. We have seen events misjudged, mistimed and incorrectly scored. Perhaps the scoring is the most difficult of all. It is very easy to score pedestrian or equestrian events. It is more or less feasible to score bicycle events; but the motorcycle has a speed of its own, and when you have half a dozen men rushing round a half-mile or mile track in, say, a twenty or twenty-five mile handicap, the task of correct scoring is not an easy one.

The referee, although his duties are confined to specific features of a meet, is really the boss of the whole show. He must have an eye for everything, for foul riding, particularly; but besides that, he must keep the clerk of the course at his work, and must keep tab on the scoring, judging and timing. If a meet is placed in the hands of a competent referee, who has the call on men who are well posted on the various duties to which they will be assigned, the success of such a meet is practically assured.

All men of this character who are interested in and who are competent to conduct motorcycle racing should at once send in their names to Dr. Thornley, Ansonia Hotel, New York City. It may be interesting to add that the fee for a referee is $5.

* *

FRED. D. FEINOUR, the reporter in charge of the Reading (Pa.) *Eagle's* suburban service, uses a 3½ h. motor-tricycle, built for the Reading Eagle Company by the Reading Standard Company. By the use of this vehicle Feinour is able to visit half a dozen suburbs daily, gathering from one to three columns of news items. The plan is a great success and is appreciated by *Eagle* subscribers.

G&J

When You Specify G & J Moto
Rims, you get the Best and Most Sa

The first and greatest feature of the G & J Motorcycle tire is the *quality*. We use only the highest grade of Sea Island fabric and the Choicest of rubber. We cure our Motorcycle tires by a slow, tedious and expensive process that develops their durability to the utmost. We stop at nothing in the making, no matter what the cost, that will better the quality. The result is SERVICE, LONG SERVICE, SATISFACTORY SERVICE. And all the time you enjoy such safety and convenience as can't be measured in money. You fear no road and the pleasure of your trips is never marred with tire trouble. ¶ Remember that you can have G & J Motorcycle tires if you specify them. They will be supplied without extra charge or delay in shipment.

See our Exhibit

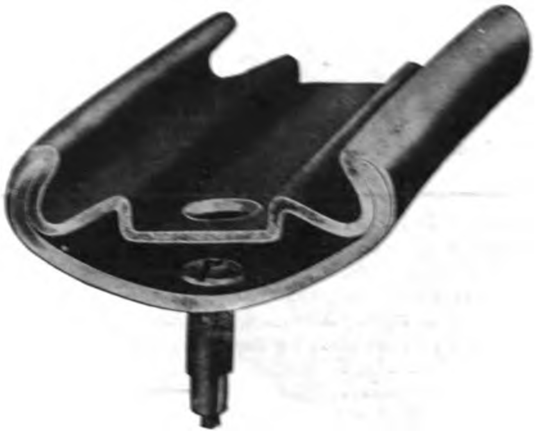
G & J TIRE CO.

DETROIT—280 Jefferson Ave.
CHICAGO—1434 Michigan Ave.
NEW YORK—10 W. Sixtieth St.

SAN FRANCISCO—414 Van Ness Ave.
DENVER, COL.—204 Sixteenth St.
BUFFALO—912 Main St.

PHILADELPHIA—713 N. Broad S
ST. LOUIS—4148 Olive St.
LOS ANGELES—1011 S. Olive St.

TIRES



cycle Tires and Double Clincher isfactory Equipment on the market

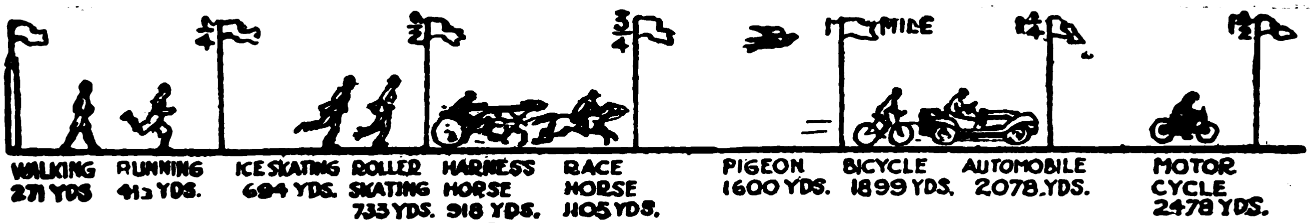
The G & J Double Clincher Rim has proven so much more satisfactory than the old style single clinch, that it is now demanded by practically every experienced motorcycle rider. It holds the tire on more firmly. It does not bend or dent as easily as the single clinch. Its strength relieves a great deal of the strain on the spokes, which prevents the wheel from getting out of alignment. Another important feature of the G & J Double Clincher Rim is the fact that the nipples on the ends of spokes do not interfere with the perfect seating of the tire in the channel of the rim. When tightening the spokes they often extend through the nipple and damage the tire — this trouble is also eliminated with the double clincher rim.

the New York Show

Indianapolis, Ind.

MINNEAPOLIS, MINN.—21 S. Second St.
OMAHA, NEB.—1608 Harney St.
BOSTON—110 Federal St.
PORTLAND, ORE.—326 Burnside Ave.
CLEVELAND, OHIO—1837 Euclid Ave.
PITTSBURG—Baum & Beatty Sts.
KANSAS CITY—1607 Harney Ave.
ATLANTA, GA.—35 N. Pryor St.
TOLEDO, OHIO—224 E. Superior St.

THE 1910 RECORD DISTANCES PER MINUTE IN AMERICA.



THE elderly men and the conservative prime-age and middle-age men continue to hold back on motorcycling. They still think it wild, undignified, dangerous. Motorcycle agents and motorcycle riders have wrestled with this doubting Thomas type many a time. Sometimes a convert has been made, but more than often not. In any event who else ever put this case finer than Mr. Edwin R. Smith, a New Haven lawyer, who is a conservative, dignified man and yet a motorcyclist of the "It's simply great, boys!" kind. It is printed here. Cut it out and give it to some holder-back:

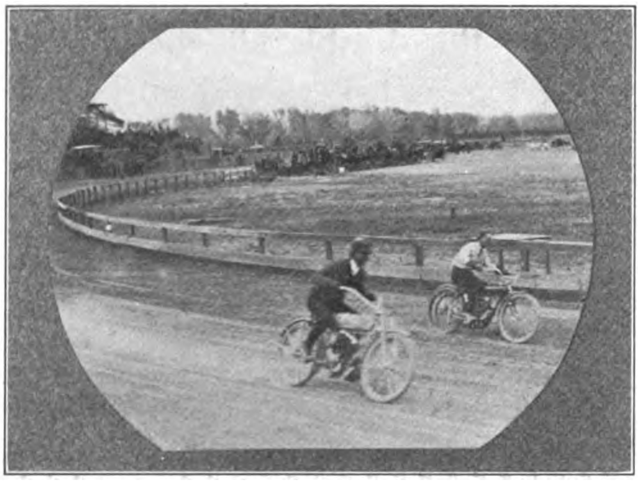
"I think the motorcycle is now regarded largely as something for the older boys and the younger men, and a sort of uncertain, jolting, wildly-careering, dangerous speed-machine, which has no message for discreet, settled manhood. All of which is a mistake. When I think of the glorious exhilarating rides I have taken on some of the recent charming November days, out into the country, through the valleys, up on the hills, and into the bustling towns, and sleepy villages—sixty, eighty, ninety miles in a few short hours with less weariness than had I gone ten miles on a "push" wheel, I am confident that if this unusual capacity of the little machine for good, wholesome, economical pleasure-giving could be imparted to them, it would certainly create a demand among the conservative class I have in mind."

* *

THE New Haven Club, which was organized a year ago, has 36 members on its roster, but by spring the members expect to increase it to about 75. The organization was formed by James Boyce, Patrick Maley, Henry Jarmie and James Cox, and they have worked faithfully the past year in booming the club to its present membership. The members meet once each month in the Insurance Building, but there is now talk of securing a permanent clubhouse in the center of the city. During the past season the club has taken numerous rides to Saybrook, Hartford, Southington and New York. In the coming year the members are planning to take several long-distance tours. There is a probability that the club will go as far as Chicago. At the last session of the club the following officers were elected for the new year: President, George Hinman; vice-president, Captain C. W. Hulse; secretary and treasurer, F. B. Sloane; captain, M. Cohen; first lieutenant, G. H. Hoey; second lieutenant, B. D. Latten.

* *

THE season has come when, in a large part of the country, the frozen-in part, the motorcycle must be put aside for a time. Good time this, in the long winter nights, to put the machine into good shape. In this number the Vet tells all about the re-enamelling process, gives complete and simple directions to make her look just as good as new. It is worth trying.



FRUIT WINNING AT EL PASO.

THE first motorcycle races in the history of El Paso were conducted on the Washington Park half mile track one day last month. The first race was a two-mile free-for-all. The track had been cut up so badly by heavy autos that the riders lost on the turns almost all that they gained on the straightaways. All those who entered the first race, with one exception, were novices. Haines, who rode the Excelsior, is a traveling representative of that company, and an experienced rider. The race ended with Haines, on the Excelsior, first; Fruit, on a twin Indian, second; Shinn, on a single Thor, third, and Eochner, on a twin Thor, fourth. The one-mile event was won by Fruit, on a twin Thor, who defeated Shinn, on a twin Indian.

* *

ROY M. HUNTER has been re-elected to the presidency of the Detroit Club. He will be assisted in the management of the club's affairs during 1910 by the following officers: Vice-president, John B. Trossel; second vice-president, Henry D. Purinton; secretary, Leo W. Banker; treasurer, Fred Kicherer; sergeant-at-arms, James H. Butler; captain in charge of tours, Chas. H. Drude. The officers, with William E. Wandersee and A. L. DeVolt, constitute the board of directors. The annual meeting was held in the club quarters at Monroe and St. Aubin avenues, and immediately afterwards a smoker was given. Reports of officers showed the club to be in such a prosperous condition that it was decided to make an effort to secure a more central location for a club home.

* *

IN a time tryout made over the Indianapolis Speedway, December 17, Freddie Huyck rode a mile in 54.38. The half was in 25.02 and the quarter in 12.22. In a second trial he made the mile in 52.2. This is much slower than his mile record for a three-lap track. Huyck expected to try for long distance records, but was unable to do so because of his oil freezing. This also made it impossible for him to attain his fastest speed even for a mile. The plucky rider's face was frozen as a result of his experience, and he suffered considerable pain for several days.

* *

PIQUA, O., has a new organization in the Buckeye Motorcycle Club, organized with a charter membership of fourteen, who have elected the following officers: President, George Soerhoff; vice-president, Gray Siegler; secretary, M. D. Grosvenor; treasurer, Nelse Jeffries; captain, Ira Boyer; executive committee, Charles Carr, Nelson Jeffries and Joe Rohr.

* *

MOTORCYCLING is looking up in West Toronto, Canada. One of the agents there is F. H. Lemon, 126 Willoughby avenue, who handles the Indian.

Morgan & Wright Tires
ARE GOOD TIRES

MORGAN & WRIGHT
MOTORCYCLE TIRES
For Nineteen-Hundred and Ten

During the coming year Morgan & Wright motorcycle tires will be furnished either as regular or optional equipment on practically every machine made in this country.

Besides the superior merit of the tires, proven time and again by their performances on road and track, this fact should also appeal to the man who is selecting his tire equipment—Morgan & Wright have more branches and agencies scattered thruout the country than any other motorcycle tire maker. These branches carry constantly a complete stock of all sizes and treads, so that your requirements can be filled immediately.

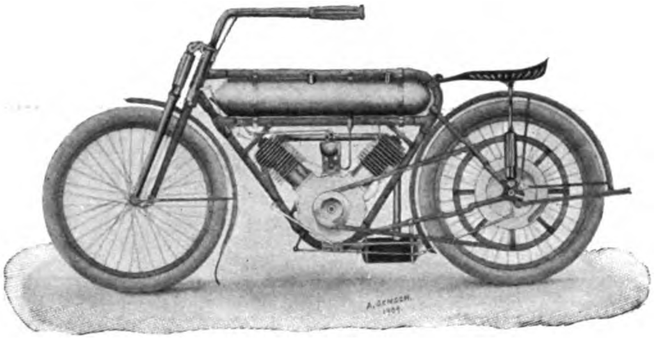
MORGAN & WRIGHT, Detroit

Buffalo: 379 Washington St.
Syracuse: 214 S. Clinton St.
Rochester: 24 Exchange St.
Pittsburg: 913 Liberty Ave.
Cincinnati: 717 Main St.
Cleveland: 2048 E. Ninth St.
Atlanta: 50 N. Pryor St.
Chicago: 81 Michigan Ave.
Minneapolis: 911 First Ave. S.
Milwaukee: Cor. 4th and Prairie Sts.
Kansas City: 605 E. 15th St.
St. Louis: 538 N. Vandeventer Ave.
Denver: 16th and Broadway.
Portland: 86 Sixth St.
Los Angeles: 1108 S. Main St.
San Francisco: 569 Golden Gate Ave.

MORGAN & WRIGHT OF NEW YORK:

NEW YORK: 1849 BROADWAY
BOSTON: MOTOR MART
PHILADELPHIA 123 N. 13th ST.

A JERSEYMAN'S IDEAL.



NOW that the season of active riding is over and we have set our machines away for the winter, why not turn our thoughts to new ideas in construction? The advent of the two-speed gear, which is becoming very popular, marks the disappearance of the pedals, relics of bicycling days, and which have no place on a modern motorcycle. It is absolutely impossible to obtain a comfortable position for the feet on pedals. There are few riders who can say that the usual method of starting a heavy modern twin is in keeping with the general excellence of the machine. Take away the bicycle and give us an autocycle—a vehicle in a class by itself—something which will carry us with the cheapness and ease of a motorcycle and with the comfort of the auto.

With these ideas in mind, I have designed the motorcycle of which I enclose a drawing. This drawing is not supposed to be a true perspective, as the parts on the other side, which would only show in places, are left out for the sake of clearness. The following are the specifications: Frame—Full loop, reinforced joints. (No springs in frame proper.) Forks—Sides on stiff fork prolonged to meet handle bars, to which they are fastened, thus doing away with the expander method of fastening the bars. Spring fork has coil spring with pneumatic cushion. Motor—Twin-cylinder 90 degrees motor of not less than 5 h., and with cylinder heads and body integral. Largest fly-wheels possible. Mechanical inlet valves. Ignition—Magneto, gear driven. Located on top of crank case between the cylinders. Lubrication—Automatic mechanical oiler operated by gears on motor; hand pump for emergencies; oil sight glass in engine base. Control—Double grip, through rods all on the outside. Throttle is also actuated by a rod from the gear-changing lever, thus preventing the engine from racing if gears are thrown on suddenly. Transmission—V belt through a two-speed gear located in the rear wheel. Gears are thrown in by a foot lever located on the slanting section of foot board (left side). Motor started by cranking. Gear ratio not determined. Seat—Pressed steel form seat supported by two steel rods which are connected with two pneumatic spring cartridges similar to that used on the spring fork. The lower ends of these cartridges are fastened with a hinged joint to the frame at a point directly over the rear axle. A hinged joint on the seat prevents the saddle from moving sidewise, but allows a free up-and-down motion. Footboards—With a straight and slanting section, giving plenty of room to change the position of the feet. The slanting section on the right hand side (not shown) is hinged at the lower end and the whole constitutes a brake lever operating a band brake in the rear wheel. Stand—Usual type of swinging stand, but raised; lowered and also held up by a lever which is part of the stand (not shown), and which is reached from the seat.

These are all the things of which any special mention is necessary; the other details would be of some accepted type. The wheel base of the machine in the drawing is that of the average single cylinder machine and the wheels are 28 inches. I hope this drawing and specifications will set other motorcyclists thinking and thus possibly bring forth ideas which will make the sport still more enjoyable.

Newark, N. J. **Arthur Gensch.**

SOME CARBURETER IDEAS.

SOMETHING different, something out of the ordinary as well as novel, is what the public generally is looking for today. Motorcyclists are no exception to this rule, and every rider has his own ideas and many like to experiment, and with nothing more than with the carbureter. Practice has established the float feed type, the great number of which differ only in detail. The old form of mixing valve long ago went to rest with its cousin, the wick carbureter, in motor junkyards. Dead but not forgotten, their best principles have been put to use in the design of the device illustrated herewith.

As can easily be seen from the diagram, the body consists of three parts—the upper section *H* being a hood, the central section *U* containing the valve seats and gasoline inlet, and the lower section *L* the valve guide, valve and spring, and inlet to motor. The novel features are the single moving part and the bottom outlet. When attached to the motor this requires a somewhat awkward connection, but no worse then we find on some up-to-date machines.

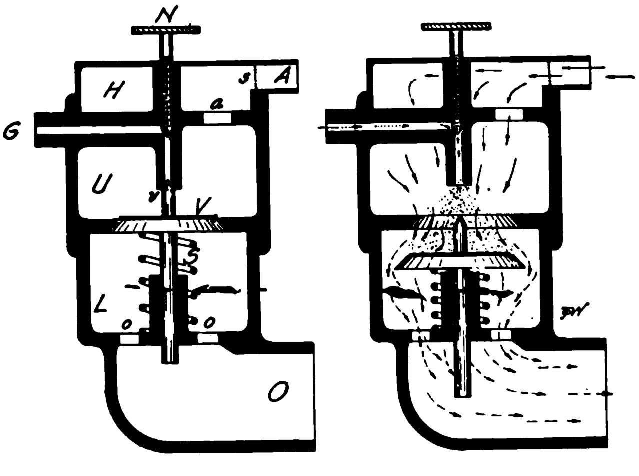
The operation depends entirely upon the suction of the piston and the perfection of the connections, and is as follows: The supply of gasoline is regulated by the screw *N*, the upper end *v* of the valve making a perfect seating to avoid leakage. The valve proper *V*, the top of which is leather covered, is also ground to a perfect fit, and is held closed by the spring *S*, similar to an automatic intake valve in a motor, and should be no stronger. In action the suction stroke of the piston draws the valve *V* (also *v*) down as shown in Fig. II, allowing the gasoline to spray on the leather cover. Air traveling through the hood *H* at *A*, which is provided with a screen *s*, and through the second openings *a*, pass over the gasoline soaked leather cover on *V* and also takes up particles of gasoline in *U*, passing around the valve, through the openings *o* and thence to the motor through the outlet *O* and its connections.

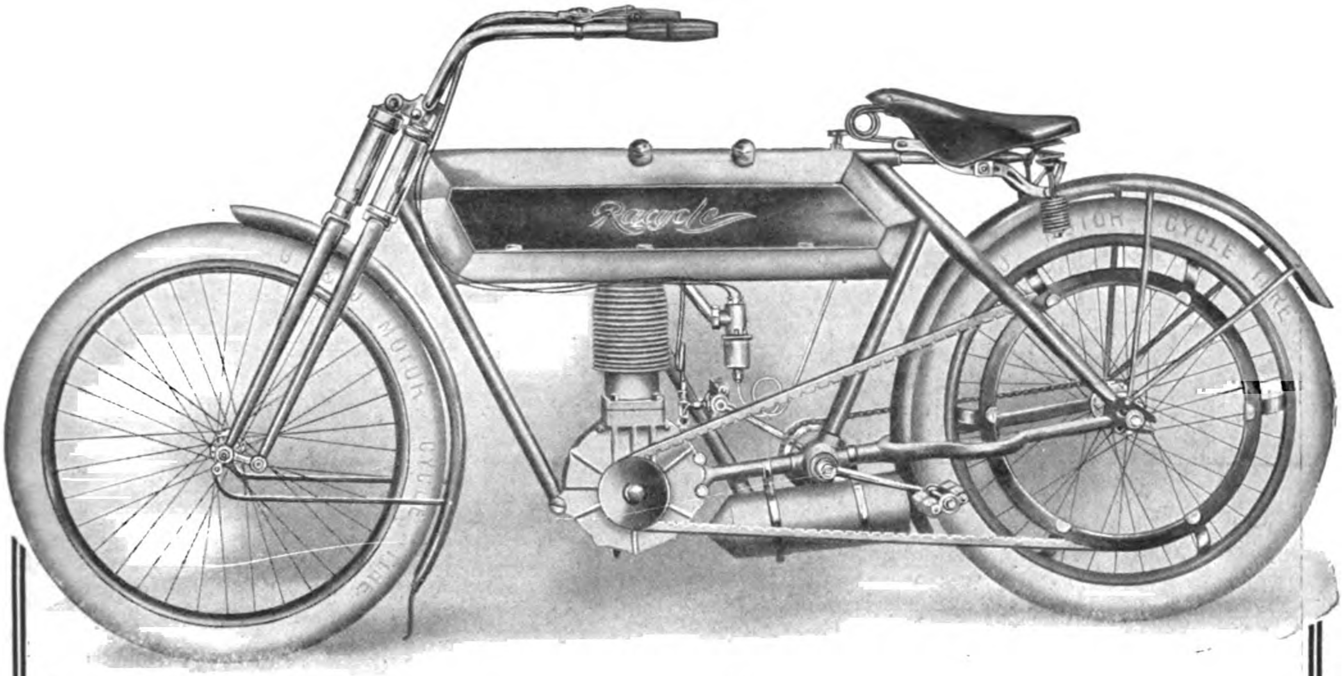
This carbureter provides means for priming by letting the valve stem protrude through the bottom, thus permitting air to enter. There is also a flat valve seat and a side outlet. Mathematically considered, the total area of the holes *o* and of the space between the valve *V* and the walls of the lower section *L* must at least be equal to the area of the intake part in the cylinder. The area of the valve opening *V* and the total area of the air passages *a* should be greater. The hood can be so constructed as to answer the purpose of an air shutter, and with a little care can be made almost dust proof. **Thomas O. Wansleben.**

728 11th Street, N.W., Washington, D. C.

* *

OUR January 15th issue will surely be of unusual interest to agents and riders. It will contain an exhaustive report of the New York Show, covering motorcycles and accessories. It will be highly illustrated, and all important features will be pictured and described.





COME AND BE CONVINCED

See Our Machine at the Madison Square Garden Show, Space 618, January 8th to 15th. Examine the Beautiful Frame Lines, the Comfortable Riding Position, the Low Centre of Gravity of the

RACYCLE MOTORCYCLE

Four Horse-Power Engine.

Improved Musselman Coaster Brake.

Our 1910 Model

Embodies the **Best** and **Latest** Ideas in Motorcycle Construction in this Country and Europe, and We Can Prove It.

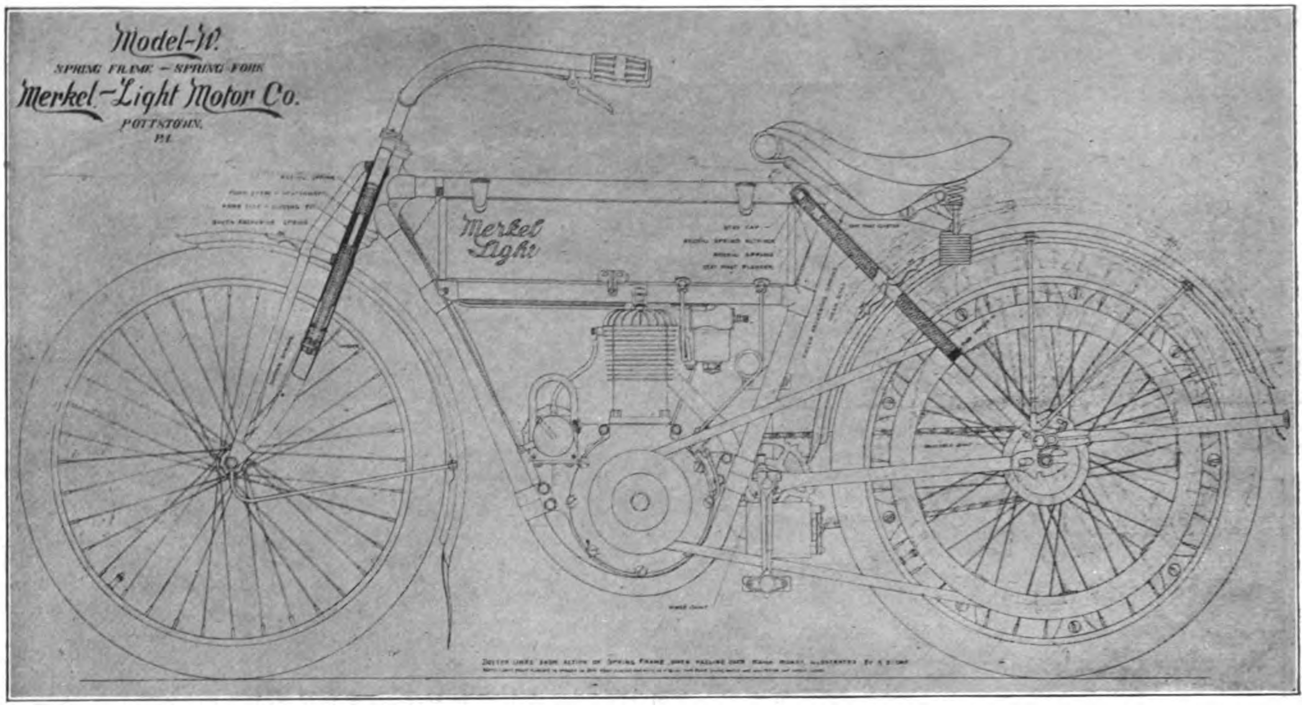
Imported English Carburetter

Emergency Gasoline Tank

Write for Full Particulars and Agency Proposition. **Closing Agencies Everywhere Every Day**

THE MIAMI CYCLE & MFG. CO., MIDDLETOWN, OHIO

THE SPRING FRAME AND FORK OF THE 1910 MERKEL.



PRACTICALLY ever since the original Merkel motorcycles were produced by Mr. J. F. Merkel, away back in the early days of the industry, one of the most prominent features in the construction of these machines has been the spring frame. Originally its construction was an adaptation of the old Sager bicycle spring frame; but in order to meet the demands of the ever-increasing horsepower, size and weight of the motorcycle, radical changes in the original design were necessary. Prior to this time the manufacturers of these machines had been handicapped by their inability to show in a plain way just what the spring frame construction consisted of. Having had so many requests during the past year or so relative to the details of this particular part of their machine, they have gotten up a sectional print which illustrates in a very thorough manner the construction and operation of the spring frame feature.

Referring to the above drawing, it will be noticed that in place of the customary rigid method of attaching the rear forks and stays to the front portion of the machine, there is a hinged joint at the pedal crank axle. This joint consists of a high-grade bronze bushing of very large dimensions which is held stationary in the lug attached to the seat mast of the main frame. The ends of this bushing protrude through this lug so that the rear fork crown is hinged upon both ends of it. It will be noticed that in the center of this bushing is inserted the pedal crank shaft, so that it becomes a universal center for this piece as well as the hinged joint for the rear portion of the machine, and permits raising of the rear wheel a distance of approximately 4 to 5 inches without changing the tension of either the pedal chain or the driving belt.

The rider is supported by two long spiral springs incased in the rear stays. There is a longitudinal slot in the upper end of the rear stays which permits a projection from what are termed spring plungers, protruding far enough so as to tie the upper ends of the rear stays together in a secure manner, which is accomplished by a bolt passing through the seat mast cluster. The springs are balanced in a manner so as to conform with the weight of the average rider and the actuation of the rear wheel is in reality from *below upward*, which results in the rider of the machine remaining practically in a stationary position.

In recognition of the vast improvements and many changes made especially for the adaptation of this spring frame feature to the motorcycle, the Merkel-Light Motor Company and it's predecessor, the Merkel Motor Company, have obtained the exclusive rights from the owner of this patent, J. Harry Sager, of Rochester, N. Y. In addition to the spring frame construction of the rear end of Merkel-Light models, they have also a spring fork which has been adjudged nearly perfect in accomplishing the twofold purpose the rigidity and strength of a trussed fork and the elasticity of the spring fork. As can be seen from the accompanying illustration, this is accomplished without an extra fork, the construction being such that it is a unit. The result is that the front wheel becomes a part of and is rigidly affixed to the front fork and handle bars. There is no chance whatever of the front wheel wabbling or becoming unmanageable.

The crown piece, which is made from a drop forging, and on to which the fork-stem proper is attached, is also a part of the telescopic tubes, which are over 12 inches in length and operate inside of the fork sides. Their extreme length gives them an unusual bearing and positive guidance on the inside of the fork sides, which are made from 1 1-16-inch 16 gauge tubing. Its large diameter permits the use of a very efficient compression spring which supports the weight of the front end of the machine. In order to eliminate any excessive shock or noise when an unusually large obstruction is hit, bumper or recoil springs of sufficient dimensions are provided. There is a long bolt which passes through both the lower main supporting spring and the upper recoil spring, as well as through each end of the crown-piece forging, which ties all of the units of this fork securely together.

It will be noted that quite a novel departure is made in the method of attaching the handlebars to the front forks; the customary practice of telescoping the handle bar stems into the front fork sides is dispensed with. The upper portion of the telescopic tubes are of sufficient gauge to permit the insertion of a screw plug, which in turn has a projection which fits into the inside of the handlebar stem so that a substantial gland-nut can be used to securely fasten the double handlebar stems to the front forks.

⁂

Seneca D. Lewis, of Detroit, has been appointed general manager of the Pennsylvania Rubber Co., Jeannette, Pa. Lewis, who has acted as advertising manager for the Winchester Arms Company, will take up his new duties February 1.

Thor Thor

YOU ALL

Are Cordially Invited to the

N. Y. AUTO SHOW, Jan. 8 to 15

To Inspect the Motorcycle

SUPREME

Thor IV

SPACE 610

MOTORCYCLE AVENUE, MADISON SQUARE GARDEN

YOU CAN'T MISS US. ***Thor*** will be on the corner of the avenue waiting for you. It's worth going miles to see.

Here's to You—A Happy and Prosperous New Year

Insure your business for 1910. ***Thor*** IV will do the trick.

Aurora Automatic Machinery Co.

1307 Michigan Ave., CHICAGO

Thor Thor

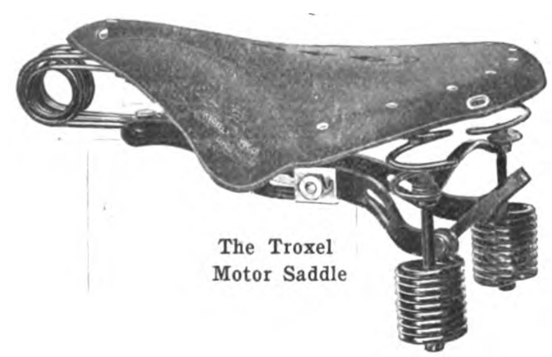
EMBLEM AGENCY IN WASHINGTON, D. C.—HARRY F. SEAMARK, AGENT.

HARRY F. SEAMARK
EMBLEM BICYCLES & MOTORCYCLES
MERKEL MOTOR CYCLES
HARRY F. SEAMARK.
EMBLEM BICYCLES & MOTORCYCLES.
BICYCLES

Harry F. Seamark, Washington representative of the Emblem Manufacturing Company, Angola, New York, recently moved into new quarters at the southeast corner of Sixth and G streets, N. W. The interior of his store is altogether in harmony with its fine front, which we reproduce. Seamark has been in the bicycle and motorcycle business for twenty-nine years, having at one time been connected with the Pope Manufacturing Company. He also handles the Merkel and Light machines.

The Troxel Manufacturing Company, the well-known saddle makers, report the receipt of orders calling for 20,000 saddles for 1910 delivery. The Troxel Eagle saddle, illustrated herewith, is designed for motorcycles after a most thorough investigation of what is most wanted by the user. The cushion springs give gently on rough roads; no sudden bumps. The material is the finest imported leather, carefully selected. The trusses are made of steel stampings as is also the Universal clamp, which is so constructed that it is impossible for the saddle to turn or twist on the post. This saddle is guaranteed to afford the rider the lowest possible position. The standard type is equipped with black enameled springs, while a slight extra charge will be made for polished nickel-plated springs.

Mr. Troxel is mayor of Elyria, O., where both his home and plant are located.



The Troxel Motor Saddle

AN EFFICIENT FUNNEL.

The Dover Stamping and Manufacturing Company advertise a funnel in this issue, a funnel which is made exclusively for and especially adapted to motorcycle use. Its dimensions are—length of top, 2⅝ ins.; width of top, 1⅛ ins.; height, 5½ ins.; outlet of spout, ⅝ in. It will be seen from these figures that the funnel is small enough to fit into any tool-bag or to be carried with ease in one's pocket. It is heavily copper plated and fitted with a serviceable strainer. This handy device is so well made and withal so cheap, costing only fifty cents, that no motorcyclist should be without one.

* *

Two of the very best firms in this business want two young men who can take care of the correspondence, follow up business, etc. They must be willing to start moderately and grow up with the business; must thoroughly understand a motorcycle and be enthusiasts. They must, of course, be able to dictate clearly. MOTORCYCLE ILLUSTRATED can place two men of this sort. Address with full particulars, Correspondent, care of MOTORCYCLE ILLUSTRATED.

* *

The Bradley Motor Co., 268 Diamond street, Philadelphia, who make the Bradley motorcycle, have had great success with the machine. This is a motorcycle worth looking into.

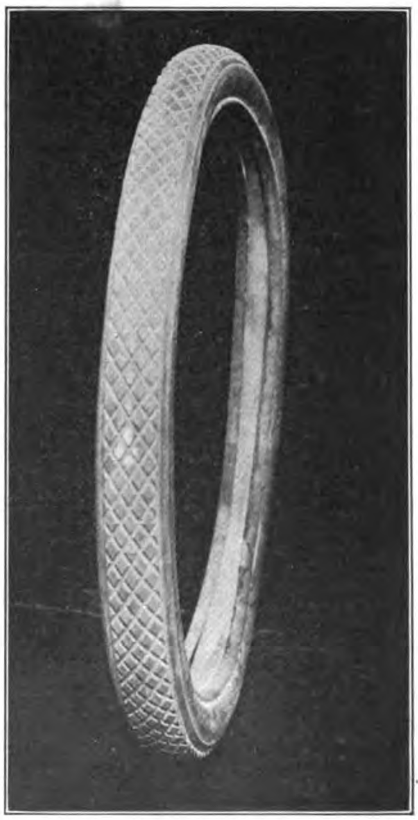
A NEW NON-SKID TIRE.

AT the coming automobile shows the Ajax-Grieb Rubber Company, makers of Ajax tires—"Guaranteed for 5,000 miles"—will show their full line of automobile and motorcycle tires. Two features of the exhibit will be the new Ajax non-skid tire, the present model of which was not seen at the shows last season, and the brand new motorcycle tire of the same non-skid type, which has just appeared on the market. In addition to these, the smooth tread models for both clincher and demountable rims will be displayed.

Both the automobile and motorcycle non-skid models have the same style diamond-shaped raised rubber studs and differ in appearance from other anti-skid tires. The raised parts are 3-16 of an inch in depth, arranged diagonally across the tread and far enough apart to prevent squeezing and flattening into a smooth surface when under weight and in contact with the road surface. The latter fault of several makes causes much of the slipping on wet pavements or muddy roads. The quadrilaterals on the Ajax tread, pointing in the direction in which they run, offer much less resistance, and wear less than the usual round or square rubber button or stud. The model is extra heavy, the 3½-inch size having five plies of fabric. A heavy breaker strip for the fabric layer between the inner pliable rubber cushion and the tough outside layer is used.

* *

A. W. Duck, of Oakland, California, has a little card in this issue about his belts, tested for eight years on the California hills. Read the card.



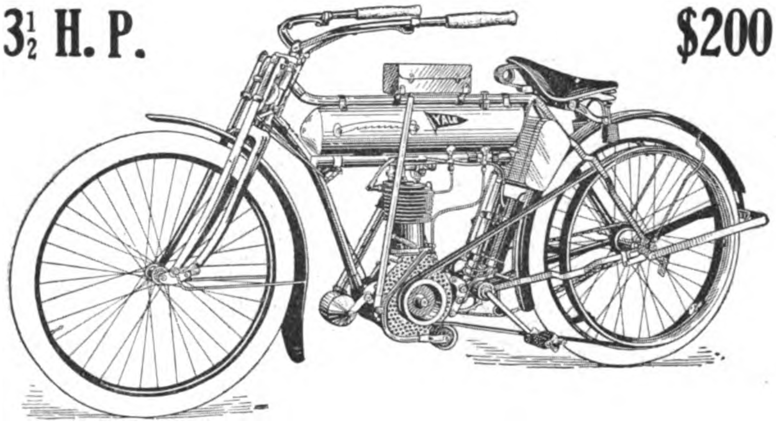
Ajax Non-Skid Tire.

1910

YALE MOTORCYCLES

3½ H. P. $200

Ride a Yale, They Never Fail



The World's Best On Two Wheels

Of Interest to Live Dealers

The Yale team (3 riders) won the Chicago Motorcycle Endurance Contest and Silver Trophy Cup, July 9-10-11, '09. 600 miles, averaging 20 miles per hour—vibrator, carbureter, battery box and spark plug sealed. A perfect score—not one adjustment.

Sworn statement of upkeep cost in 1909 shows average of less than 50 cents for all repairs from misuse, neglect and accidents.

THE YALE 6½ H. P. TWIN CYLINDER, $300

WE WILL EXHIBIT AT THE MADISON SQUARE GARDEN AUTO SHOW

January 8 to 15. Space 602 in Basement

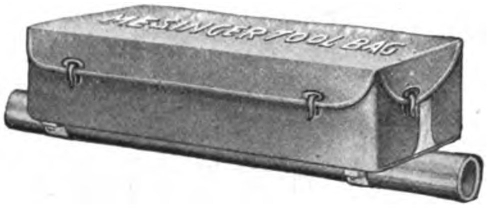
GIVE US A CALL AND RECEIVE HANDSOME SOUVENIR.
IMMEDIATE DELIVERIES.

The Consolidated Manufacturing Co.

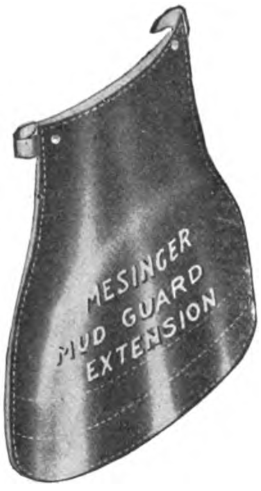
1730 FERNWOOD AVENUE :: :: TOLEDO, OHIO

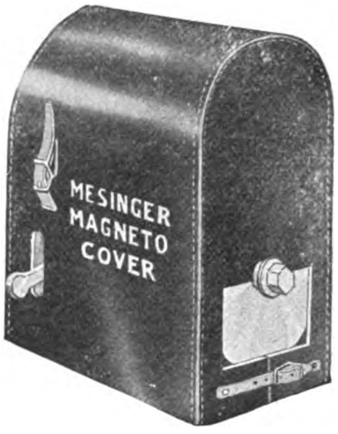
We also make YALE and SNELL BICYCLES, CONSOLIDATED PACKAGE CARS, HUSSEY HANDLE BARS, and DROP FORGINGS of every description.

THREE NEW MESINGER ACCESSORIES.



The H. &. F. Mesinger Manufacturing Company, of 1801-1803 First Avenue, New York, announces for 1910, in addition to its well-known Cavalry and Mesinger saddles, three new leather accessories of excellent material, beautiful design and fine workmanship. These are a tool bag, magneto cover and mudguard extension, respectively, and, as the illustrations show, all are well made and very attractive in appearance. The tool bag is so designed as to provide the greatest possible amount of room in a given space, and be conveniently opened and closed. The mudguard extension is a device which every rider will find handy in wet weather. It serves excellently its purpose of protecting the engine and the rider from mud and water thrown from the wheel beneath the metal guard—in fact, an extension of this character is quite indispensable to all who are accustomed to use their machines irrespective of weather conditions. The magneto cover, designed to protect either Bosch or Splitdorf magnetos, is another useful fitment. The one manufactured by the Mesinger brothers is just the kind wanted by riders who believe in affording every possible protection to the delicate parts of their machines. These accessories are more fully described in the Mesinger page advertisement published elsewhere in this issue.





THE 1910 EMBLEMS.

THE Emblem motorcycle, made by the Emblem Manufacturing Company, of Angola, N. Y., which will be produced in three models, shows a vast improvement over the 1909 output. There will be a 4, 5 and 7-h. machine, respectively, the first two being singles and the last, of course, a twin. Each one of these models will be equipped with either battery or Herz magneto. The Eclipse free engine will be standard on all models and a two-speed gear will be optional with the purchaser at a comparatively small increase in price.

The Emblem intake valves are automatic. The lubrication system is of the sight force-feed type. The carbureter is the Heitger and the control is by concealed wire, twist-of-the-wrist system. An efficient spring fork is part of the equipment, the wheel base is 56 inches and the wheels 28 inches in diameter. The tires are 2½-inch Empire or G & J, while either the Troxel or Mesinger saddle will be fitted, as the purchaser desires. The transmission is by V or flat belt. The gasoline capacity is two gallons, the oil capacity two quarts and the finish carmine and gray. The weight of the 4-h. single is 175 pounds, of the 5-h. single 180 pounds and of the 7-h. twin 200 pounds.

The manufacturers are using an 11-inch engine case, a large cylinder with air-cooled offset exhaust ports. The Emblem seatpost is an extension of the upper main frame tube. One of the features of this company's exhibit at the Garden Show will be a handsomely nickeled 1910 twin.

A LEATHER TIRE.

A tire which is sure to attract the attention of motorcyclists is now ready for marketing. Realizing the special need of a heavy service tire for motorcycles the King Leather Tire Company, of Milwaukee, has given this branch of the tire business particular attention. After a thorough test the tire has been placed on the market with a positive mileage guarantee and warranted to withstand all road damage, such as blowouts, rim-cuts, and punctures. The manufacturers have numerous testimonials to its wearing qualities. The elimination of tire trouble has long been sought and, with the greatly increased cost of ordinary tires, motorcyclists will be interested in this new production.

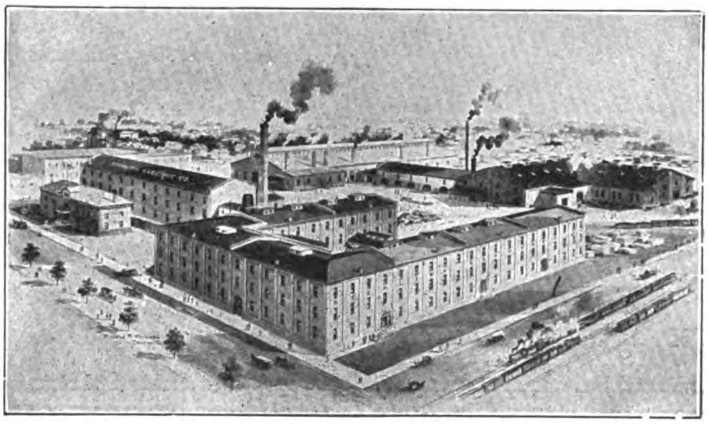
Although of great strength the tire has the advantage of being quite resilient. The company has good backing and is composed of men of large experience in tire building. It will pay motorcyclists to investigate the King tire.

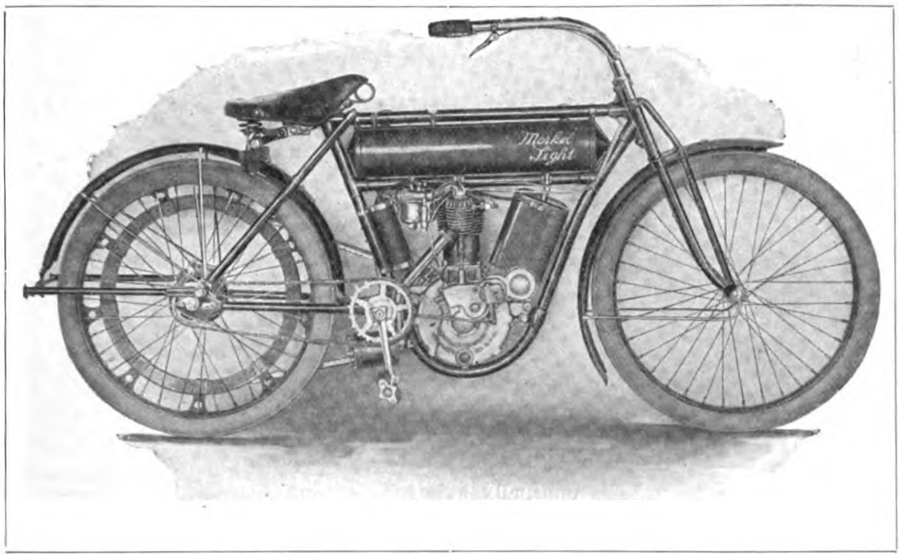
* * *

In this issue the C. V. Stahl Motor Works, 29th and Diamond streets, Philadelphia, have a 1910 announcement. They make the C. V. S. motorcycle; have made it for a long time. It is sold on its merits and under a guarantee. They will send their literature to anyone on request. The machine can be seen at the Philadelphia Show, Jan. 24 to Jan. 31.

COIL OPERATED BY TWO BATTERIES.

A view is here shown of the large plant of the Cartridge Coil Company at Lafayette, Ind. This is the home of cartridge two-battery motorcycle coil and other standard types of ignition apparatus. This company has a factory well equipped for all classes of coil and electrical work, and besides their own very complete line they design and make a large number of other specialties in the automobile, railway signal and telephone business, besides making several types of gun telephones for the U. S. Navy. The quality of their work has long been recognized as of the highest grade, so that in taking up the task of perfecting a coil for motorcycles they were well equipped by ability and scientific experience to handle the subject in an efficient manner, as verified by the wonderful efficiency of their two-battery coil. The material used in this coil forms the groundwork for a high grade article. The core is of the best Norway iron wire, and the windings are of Rose enameled wire, having double insulation and yet making a most compact coil. The condensers are made of the best India mica and tinfoil, and are puncture proof. This coil gives a hot, sharp spark. The Cartridge Coil Company will gladly send literature about this coil to any one interested.





Model W

4 H. P. Single Cylinder

See it at the Shows

NEW YORK:
Madison Square Garden, Jan. 8th to 15th, Space 600.

CHICAGO:
Feb. 5th to 12th, Coliseum Annex, Spaces 134 and 135.

BOSTON:
Mechanics Fair Bldg., March 5th to 12th, Dept. F., Spaces 581 and 582.

LOOK FOR THE 1910 MODELS OF

THE FLYING MERKEL

the handsomest, and most comfortable motorcycle in the world. The only motorcycle with the Spring Frame and Fork.

While the new 1910 models are not radically different from those of last year, we have, however, made some changes in a few details that are of distinct advantage to the rider. Among these are the following: The Carburetor is the "New Merkel Improved." The "Muffler" is of an entirely new design—very small, compact and noiseless. Fitted with cut-out operated by the foot.

The adjustable front pulley has been improved. By a very simple operation, the ratio of gears can be changed from 5 to 1 to 4 to 1 or any intermediate on the Single. This pulley is in every respect as rigid, firm and accurate in adjustment as one turned from a solid piece.

One of the most popular of our eight different types is the Model W, a 4 H. P. Single Cylinder supplied either with Battery Ignition or Bosch Magneto. Ask for circular and demonstration.

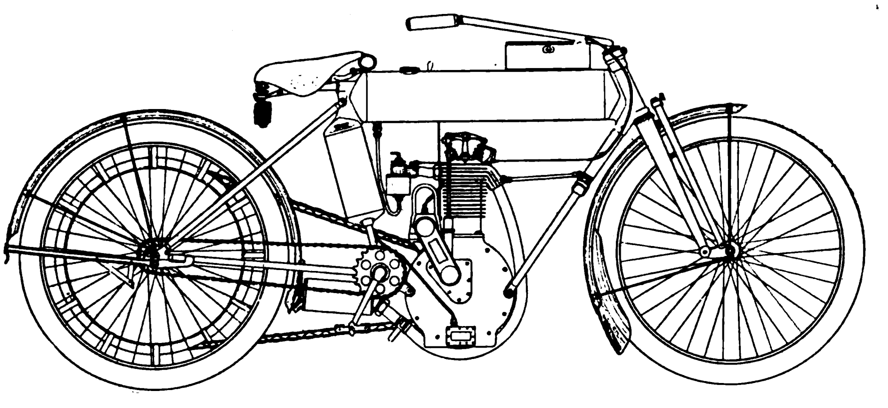
If "The Flying Merkel" looks good to you, maybe an agency proposition would interest you.

MODELS AND PRICES.

Model A.—2½ x 2¾ H. P., Single Cylinder, Battery Ignition, only	$150.00
Model W.—4 H. P. (30.43), Single Cylinder, Battery Ignition	225.00
With Bosch Magneto	250.00
Model V.—6 H. P. (53.92), Twin Cylinder, Bosch Magneto only. Belt Drive	300.00
Model V.—7 H. P. (60.86), Twin Cylinder, Bosch Magneto only. Belt Drive	325.00
Model W.—4 H. P. (30.43), Single Cylinder, Racer, Bosch Magneto, only	275.00
Model V.—7 H. P. (60.86), Twin Cylinder Racer, Bosch Magneto, only	350.00

MERKEL-LIGHT MOTOR CO., Pottstown, Pa.

MARVEL DETAILS PROVE THAT IT IS WELL NAMED.



THREE of the leading motorcycle experts in the country have designed the Marvel, a machine which came into being during the current year. The Marvel is equipped with the Curtiss new Model Four 5-h. m. o. i. v. single cylinder roller-bearing motor, the latest creation of Glenn H. Curtiss, the successful aeronaut. It was a larger model of the same type of motor that won the International Cup in France against the best engines of Europe. This motor is said to have shown, in a brake test, over one horsepower more than any other previous engine of equal cylinder capacity. On hills it is reported to have done as well as the average twin of a year ago. The offset construction is said to do away with one-fifth of the strain on the running parts, thus increasing the engine's power and making starting easier. No matter how slowly the machine may be run the spark will propel the flywheels, which are large, with an increased weight upon the rim. It is guaranteed against back fire.

The Marvel is equipped with valves-in-the-head, a device which enabled Mr. Curtiss to win the international aeroplane race at Rheims. These valves are extra large, 1⅝ inches, and are so designed to prevent overheating. The piston head is domed, thus assisting in cleansing the cylinder of burnt gases. The cylinder and head, by the way, are of one piece, without any joints to leak or require repacking. This permits of grinding the entire explosion chamber perfectly smooth, so that there are no rough parts or "corners" to become incandescent and cause pre-ignition. The mechanically operated valves work on one cam, and are made of thirty degree nickel steel. The piston pin bearing has an extra large surface, while the single steel connecting rod is of such material and so designed as to insure great tensile strength.

The lubrication of the Marvel is automatic and a float head keeps the oil at a positive level in the crank case at all speeds and under all conditions. The oil well in the case is unusually large; so that if one should run out of oil while out on the road, it would be possible to travel a considerable distance before having to obtain more lubrication.

The Marvel frame is simple, handsome in appearance and strong. It gives a low saddle position and a long wheel base. The top tube is made large enough to include the gasoline tank, which is, consequently, of steel construction. The tank is fitted with a strainer, and a dirt and air well is an important feature. The oil tank or compartment is in the seat-post tube, back of the engine, of course, where it is kept warm in cold weather. Both tanks are fitted with new large filler tops. The built-in-the-frame compartments are especialy designed to prevent leakage, rattling and the loosening of parts.

The Marvel transmission is by 1⅛-inch V belt. The carbureter is the same as that which has done such excellent work on the Curtiss in former years. The gasoline and compensating air adjustment permits it to be throttled away down without altering the mixture. It is neat, compact and light, yet without any delicate parts. The mudguards are extra heavy with a wide raised center strong enough to carry the extra weight of the stand without breaking. Double heavy brazed-end braces are fixed to the rear guard and a big wide 5-inch lap to the front guard. The coaster brake has a fourteen-tooth sprocket to make pedaling easy and to lessen the strain on the pedals.

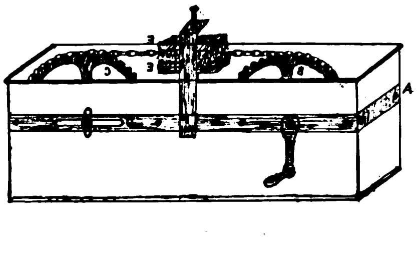
Other fitments are a Person's toolbag, Mesinger Cavalry saddle, a new magneto spark plug, an aluminum muffler, a well-fastened rear pulley, conveniently shaped handlebars properly reinforced, Kokomo tires, grip control, magneto ignition and, in fact, all the improvements of latest design or of proven excellence.

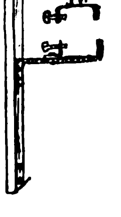
A meeting of the Motorcycle Manufacturers' Association will be held at the Hotel Breslin during the week of the New York Show. The date has been set at January 10, at 10 a. m.

THIS device will be much appreciated by the busy repair man, as well as by the rider who is handy with tools and knows the bother of cleaning chains. It consists of a tin or galvanized iron box 2 feet long by 4½ inches wide and 8 inches deep, through the center of which are supported two old sprockets, each about 8 inches in diameter, one of ⅝ inches and the other of 1 inch pitch, the latter bolted to the ⅝-inch pitch sprocket, with half an inch space between. This arrangement will take any standard chain.

A is an iron band, 1¼ x ¼ inches, riveted to one side only for the purpose of supporting the axles of *B* and *C*, which are supported from one side only. *B* is provided with a crank, while *C* is adjustable in slot *D* for any length chain. *E* and *E* are two small five-cent hand brushes, the upper one being provided with a tension spring. *G* (Fig. *b*) is the brush holder, provided with set screws for holding the brushes. The chain passes through kerosene, and in less than a minute is washed as clean as when new.

OLIN ROSS.





Arrangements for the Middle and New England States were completed last week by the Excelsior Supply Company with Stanley T. Kellogg, Mr. Robie coming especially from Chicago to finish up the business. Mr. Kellogg had large Excelsior territory last year, and the 1910 arrangement is a renewal and an extension of his connection. His headquarters will be at 2312 Broadway, which is the location of the Widmayer Agency. From this point he will travel New England and the Middle States appointing new agents, etc. Meanwhile Mr. Widmayer has been appointed the Excelsior agent for the five boroughs of Greater New York. Mr. Kellogg has also appointed a new manager for his Bridgeport store, which will leave him entirely free for bigger things. He has also reported that orders received up to Dec. 20 far exceed the business he did last year from Jan. 1 to June 30. The Bridgeport store will be in the hands of Shelton Sturges, of Shelton, Conn. R. M. Mansfield, of Babylon, Long Island, will handle the Excelsior for 1910.

⁂

One of the notable items about Elwood, Ind., is that among the riders there are three brothers, named Mabon, Floyd and Duke Humphreys. One rides a Curtiss, one an Indian and the other a Wagner.

"The Man From Missouri"

is the man we want to see. If *you* want to be shown just visit the M. M. booth at any of the coming Automobile Shows. We'll be at Madison Square Garden next week, Chicago in February and at Boston in March. The three M. M. 1910 Models will be there of course—the 3½ hp. Battery Special for $200, the 4 hp. Magneto Single at $225, and the 7 hp. Magneto Twin which will list at $300. In every one of them you will see *genuine motorcycle value.* You will find a full dollar's worth for every hundred cents you spend. You will see *real* improvement and advanced design. You will find more of the original M. M. features.

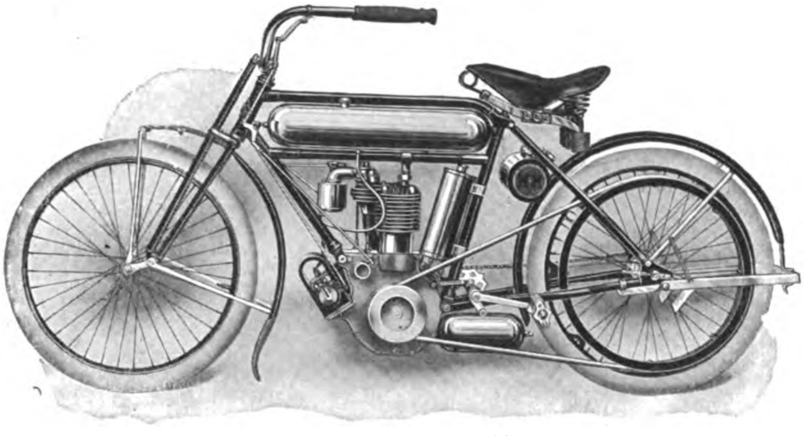
These are broad claims. Other manufacturers make similar ones. Talk is cheap. The M. M. talks for itself. That is why we want to see *the man who wants to be shown.* The 1910 M. M. is all that we claim for it—and then some. *We know* it is, and what is more, *we know we can show you* that it is. We want simply to show it to you. We want you to visit the motorcycle exhibits at the automobile shows where will be grouped the very best there is in motorcycle design and construction from this country and abroad. You will there have the opportunity to compare the M. M. with the others. As a straightforward business proposition we ask you to compare the M. M. with any other machine, no matter where made or what the selling price may be. Can *you,* or anyone else, ask for a fairer test? We'll abide by your decision because we know the M. M. *is good,* and that it will *"make good"* for you.

AMERICAN MOTOR CO., 716 Centre St., Brockton, Mass.

Member Motorcycle Manufacturers' Association

DISTRIBUTING STORES:

Boston, 273 Huntington Ave.; New York, Geo. P. Jenkins, 10 W. 60th St.; Buffalo, L. E. French, 895 Main St.; Chicago, G. M. Greene, Mgr. Am. Motor Co., 2127 Michigan Ave.; Dallas, American Motor Co. of Texas, M. M. Building; Los Angeles, Lincoln Holland, 1034 So. Main St.



M. M. "4"

Mechanical valves. 30.50 cubic inches. Roller bearings. Automatic mechanical oiler. Automatic stand. Original M. M. spring fork. Emergency fuel tank. Flat or V belt drive. Low frame. Large tires, etc., etc. Price, $225.

CONQUERING THE SLOPE OF PIKE'S PEAK.

Nine thousand feet above sea level, a grade averaging thirty-five per cent., and a road covered with deep sand, are some of the conditions which confronted these two riders of R.-S. Model No. 3 belt drive twins, in their climb of "Ambosn Hill," on the slope of Pike's Peak, twenty miles from Colorado Springs. The machines are geared at 4 to 1. We are indebted for the photograph to Messrs. Sheff & Riggs, Reading Standard agents in Colorado Springs.

A VOICE FROM THE SOUTH.

SOME time ago there appeared in this journal an article which stated that "nearly every manufacturer believes they have their off season. It is presumed by Southern readers of this magazine, that the off season referred to is when winter sets in, and the riders put away their machines during the 'freeze up.'"

Wake up, Mr. Manufacturer of the two-wheeler pleasure craft. Nothing frozen down here, while the ever-sunny Southern States that touch the Gulf of Mexico are "coming" fast. We are marketing our cotton, rice, sugar products, and we all have some coin, of which no doubt you would like to get a liberal share. To accomplish this, I would suggest that you stop giving out large sums to speedy artists who will put your product over some Eastern course at a forty-second, more or less, gait, and use some of this money to get records in the South, besides profits and a reputation.

New Orleans, the gateway of the South, with her four hundred thousand people, instead of having barely twenty machines, will soon have over two hundred gliding up and down her palm-shaded avenues. Memphis and Shreveport will probably double up. It might be of interest to the members of the Motorcycle Manufacturers' Association to know that there are people down here, big and little, old and young, who never saw a motorcycle and do not know what one looks like. Why not tame these people and get their business? They have the money.

Vicksburg, Miss. S. C. RAGAN, JR.

EXPERIENCED MEN WANTED.

Will you again give prominence in your paper to the fact that I am exceedingly anxious to appoint referees all over the country upon proper recommendation. Now is the time for the referee so selected to get in touch with men they can depend upon to be clerks of course, judges, scorers and timers. With a very little trouble on the part of a given referee at this time, he can get hold of men upon whom he can depend, and when he is called upon to referee a given race, it will be a very simple matter for him to notify his assistants, and not have to pick up men at random, at the time of a meet, and depend upon their inexperience to help him out in his work. I think this is a matter of great importance to the good management of races next summer, so I would suggest that clubs and individuals interested in the appointment of capable men send their names to me as soon as possible.

Very sincerely yours,
J. P. THORNLEY.
Chairman Competition Committee.

* *

The F. A. Baker Company, of New York, announce their removal about February 1 into a splendid new store at 10 Warren street, where they will occupy the ground floor and basement. The new location is just across from where they are at present, number 39, but it is nearer to Broadway. As every New York motorcyclist knows, the Baker folks are general Indian agents for Greater New York and Long Island, and they represent the Pierce people in New York City. They also carry a fine line of accessories. As their place is very convenient New York motorcyclists and local agents ought to find it a good depot for supplies.

* *

The Royal Motor Works, of Worcester, Mass., announce that, although partly burned out a few days ago, they will soon resume shipping Royal Pioneers.

"Two New Indians" is the title which F. R. Goodwin suggests for this photo, which he has sent us from Genoa, Neb. The picture was taken at the Genoa Indian School, with the boys' dormitory in the background. The husky youngster mounted on the Indian is Lawrence Smith, a full-blooded Cherokee redskin, even though his name is thoroughly American.

* *

Chris. J. Wietzel, president of the Dayton club, recently rode from Dayton to Zanesville in five hours. He made the trip to Columbus in two hours and had it not been for an accident, experienced six miles west of Zanesville, he would have made even better time. The distance is 140 miles.

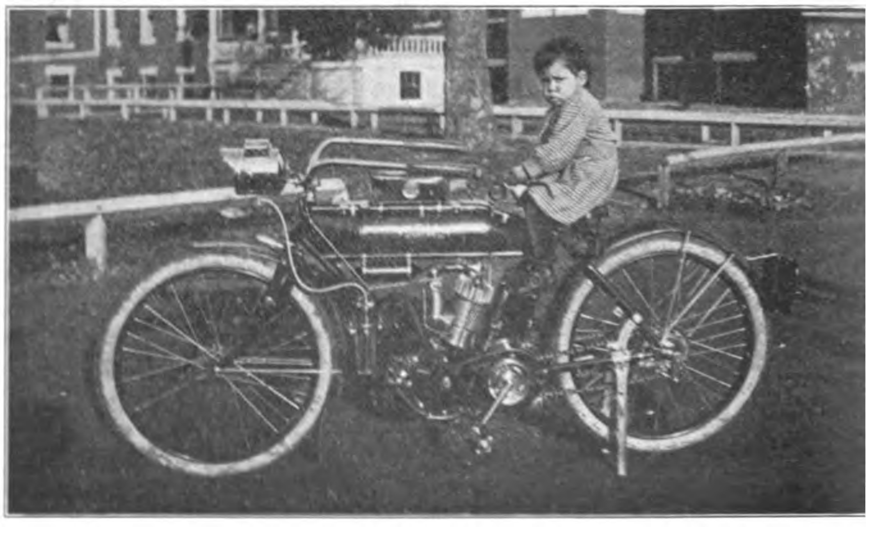
* *

Is there any place in the United States where I can buy Brown & Barlow carbureters? J. S. T.

Pittsfield, Mass.

No. Their home address is **Birmingham**, Eng. Ed.

ONE INDIAN AND ANOTHER.



R-S R-S

1910

READING STANDARD MOTORCYCLES

Will be exhibited at

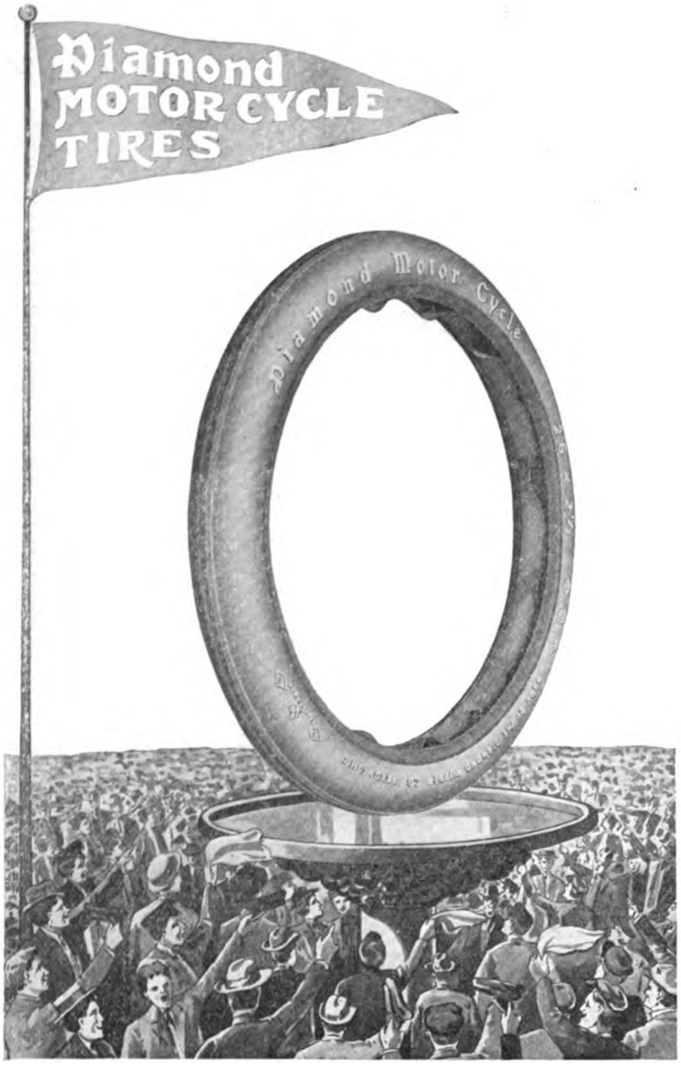
New York, Chicago and Boston Shows

THEY WILL TALK FOR THEMSELVES

READING STANDARD CO.

READING, PA.

R-S R-S


Diamond
MOTOR CYCLE
TIRES
Diamond Motor Cycle

Royally Welcomed

THE NEW

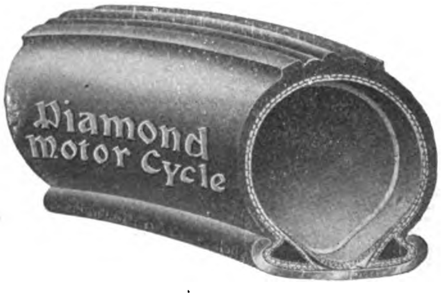
Diamond

Motorcycle Tire

¶ Diamond Automobile Tire prestige has given us a big hold on the Motorcycling public—

¶ It is deserved but—the Diamond Motorcycle Tire is ITSELF worthy of your careful consideration and confidence

LONG LIFE AND MILEAGE


Diamond
Motor Cycle

THE DIAMOND RUBBER CO.,
AKRON, :: OHIO

New Catalog upon request.

TENTH NATIONAL
AUTOMOBILE SHOW

Madison Square Garden, New York City

January 8-15, 1910

Under the Auspices of the

Association of Licensed Automobile Manufacturers

¶ There will be shown a complete line of GASOLINE AUTOMOBILES manufactured under the Selden Patent, ELECTRIC CARS, COMMERCIAL VEHICLES, TAXICABS, etc. A full line of TIRES, ACCESSORIES and PARTS.

The only complete

Exhibition of Motorcycles and their Accessories

to be shown in New York in 1910.

¶ The following Manufacturers of Motorcycles and their Accessories will exhibit:

Merkel-Light Motor Co.
The Consolidated Mfg. Co.
N. S. U. Motor Co.
American Motor Co.
Hendee Mfg. Co.
The Herring-Curtiss Co.
Harley-Davidson Motor Co.
Reading-Standard Co.
Aurora Automatic Mchy. Co.
Greyhound Motor Works
The Pierce Cycle Co.
Excelsior Supply Co.
The New Era Auto-Cycle Co.
Eclipse Machine Co.
F. A. Baker & Co.
Royal Motor Works, Inc.
The Miami Cycle & Mfg. Co.
Emblem Mfg. Co.
Marvel Motorcycle Co.
Reliance Motorcycle Co.
S. D. Mfg. Co.

MOTORCYCLE MART: IT SELLS THE STUFF.

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word. No advertisement for less than fifty cents. Cash with order, always.

FOR SALE OR EXCHANGE

FOR SALE—M. M., cheap; 2-in.—one tank, holding ½ gallon of oil and 2 gallons of gasoline; flat belt, free engine device; brand new tire on rear wheel; $75.00 takes it. George E. Sanders, Steubenville, O.

FOR SALE—M. M. sidecar, dirt cheap; used very little; good reason for selling; has 2½ inch tires. G. H. Neidengard, Steubenville, O.

FOR SALE CHEAP—Indian motorcycle; has been used very little, and is in excellent condition. W. W. Arthur, 2214 Plain, Columbia, S. C.

FOR SALE—1909 Indian, ridden less than 300 miles; will sell for $95. Harold R. Cobb, Fredonia, N. Y.

MUST SELL like-new motorcycle, 1909 model brand new engine; well equipped with extras; worth $150; make offer. Chas. H. Rennie, 717 W. 87th street, Chicago, Ill.

FOR SALE—One 1909 model 3½ h. p. Curtiss in first-class condition; horn, lamp, pump, repair kit and good outfit of tools; a bargain; spring forks and stand. William Miller, Monroe, Neb.

FOR SALE—One twin 1909 5 h. p. Indian; loop frame; a bargain at $150. Chas. Grow, Oregon, Ill.

FOR SALE OR EXCHANGE—1909 N. S. U. 6 h. p. twin, magneto, tandem attachment; horn, tools, speedometer. Cost $370; will take $300, or any good make auto. Write A. Block, 80 Stockholm street, Brooklyn, N. Y.

FOR SALE—Three h. p. Thor, new this spring; excellent condition; need money; $125 takes it. Write M. Anderson, 71 Batavia avenue, Batavia, Ill.

FOR SALE—1909 Indian twin magneto, full equipment, foot rests, perfect order, chain drive; crated ready for shipment, $200. Chas. H. Thompson, Jr., 157 Pelham road, Germantown, Pa.

FOR EXCHANGE—Krag Jorgensen rifle and lot of ammunition and good old Hardanger violin for motorcycle. Address Edw. L. Solem, Northwood, N. D.

FOR SALE—1909 M. M. Special 3½ h. p., ridden about 150 miles; perfect condition; new in September; am buying Twin. First check for $130.00 takes it. W. J. Fowler, 438 Baldwin avenue, Detroit, Mich.

HELP AND SITUATIONS WANTED

WANTED—Position with manufacturer, jobber or retailer; good habits, and references furnished. John H. Jones, Sparta, Wis.

WANTED—Bicycle repair man, one familiar with motorcycle work preferred. Steady job to experienced, capable man. State references, age and wages required. H. R. Olmstead & Son, Syracuse, N. Y.

AGENTS CARDS, ETC.

MOTORCYCLES thoroughly overhauled and repaired; agents Thor and Excelsior motorcycles; supplies and sundries. Brazenor Ruderman, 849 Bedford avenue, Brooklyn, N. Y.

M-M and R-S MOTORCYCLES—East End Cycle Co., Highla & Beitler, near Centre avenue, Pittsburg, Pa.

SECOND-HAND M. M. BARGAINS—Exhaust Whistles, Ha Idlers. M. M. Branch, 895 Main street, Buffalo, N. Y.

DISCOVERED—The motorcyclists' best friend on a windy nig A positive stormproof lamp lighter, once used, never without; fin thing in the world for smokers; only 25 cents; sent prepaid for cents. Tiger Cycle Works Co., 782 Eighth avenue, New York City

B. & C. Two-Speed and Free Engine Gears; Ideal equipment Motorcycles. Bushnell & Cannon, 1268 E. 80th place, Cleveland,

FOR SALE—New 5 h. p. twin Indian, $200; second-hand 5 h. twins, $125 up; singles, $75 up. F. B. Widmayer Company, 2 Broadway, New York City.

IF IT IS a second-hand machine you want, write to A. D. C 111 Monroe avenue, Rochester, N. Y.; Curtiss Agency.

BARGAINS in accessories. Always on top. We have the lar stock and lowest prices in America. Write today for catalo Motorcycle Equipment Co., Hammondsport, N. Y.

MOTORCYCLE Accessories and Supplies at very lowest pri Write us, stating your needs. General Supply Company, Box Allentown, Pa.

IF YOU WANT A SPEEDY, ELASTIC, LASTING MOTORCY BELT, "TESTED FOR EIGHT YEARS IN CALIFORNIA HILLS," A TWISTED, ROUND, SPECIAL TANNED; FITS LIKE A V B THREE GRADES. $4, $5 AND $6. SEND CASH WITH ORDER. A. DUCK, OAKLAND, CALIFORNIA.

Dowe's Bicycle Luggage Carriers
Best Thing for the purpose ever put on the market. In use all over the United States. ¶ Can put on or detach instantly with adjustable hook. ¶ Good sellers because the riders all want them and the price is popular. Write for Prices.
DOWE WIRE & IRON WORKS
Louisville, - - - - Kentucky
Patented Dec., 1907

GET THE UTMOST PLEASURE OUT OF DRIVING YOUR MACHINE AT NIGHT

That's possible only if you're using Solar lamps—the lamp of quality—the dependable lamp. The motorist who has Solars has that feeling of entire confidence which comes from a knowledge that his lamps can be depended on to show the road clear and distinct all the time. Why not insist on Solars with your machine?

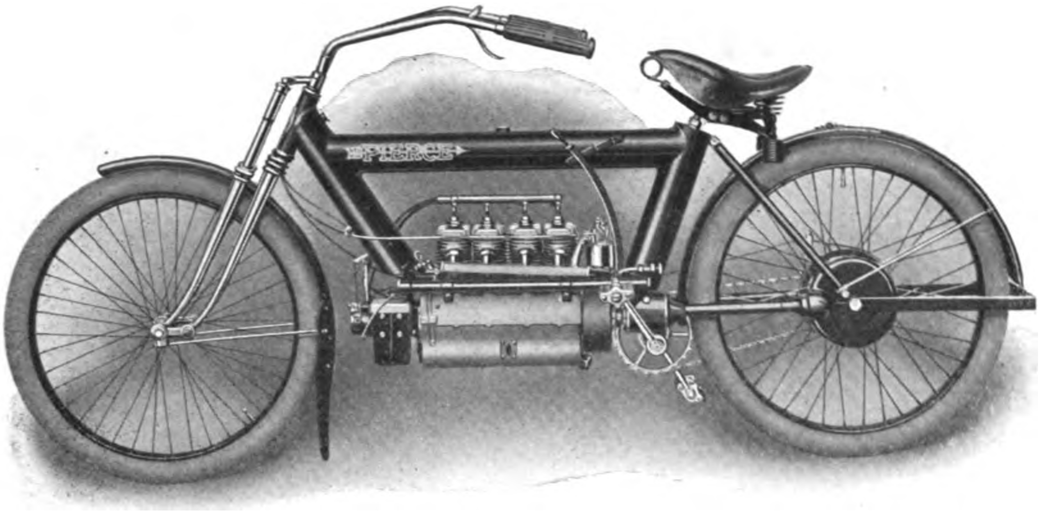
BADGER BRASS MANUFACTURING CO.
KENOSHA, WIS. NEW YORK CITY

F N
MOTORCYCLES
NEW AND SECOND HAND
F N Four Cylinder Motorcycle and Duplicate Parts
H. H. WILCOX
159 Green St., Jamaica Plain BOSTON, MAS

TORPEDO MOTORCYCLES
WHY HESITATE? Unless you ride the BEST you cannot be a SATISFIED MOTORCYCLIST. You know there can be but one BEST and that is the TORPEDO. Write for catalog and agent's terms.
The Hornecker Motor Mfg. Co.
Geneseo, Ill., U. S. A.

THE MOTOR CYCLE 1d
The British Motor Cycle
NEWSPAPER
American subscription rate, $2.50 per annum
"The Motor Cycle," 20 Tudor St., London, E. C.

THIEM 1909
If you or your friends or your friends' friends a terested in the latest and best improved Motor regardless of how highly you regard other mak not purchase a Motorcycle until you have writ for Our Latest Catalogue describing in deta about Our New and Original Models. Best Proposition to Date.
THIEM MANUFACTURING COMP
Box 498, Minneapolis, Minn.



Condensed Description of Pierce Vibrationless Motorcycles for 1910

THE FOUR CYLINDER

The Pierce four cylinder is the only machine of its kind in the world. Among its numerous superior features are, the four cylinder engine, shaft drive, automatic oiling system, large tubing frame, two speeds, free engine, sliding gear transmission, magneto ignition, simple control and accessibility of all parts. The engine has 7 H. P. and with the two speed gear it is able to climb smoothly any hill that may be encountered.

PERFECT MATERIAL AND PIERCE WORKMANSHIP HAVE COMBINED TO MAKE THIS THE MOST COMPLETE AND MOST REFINED PRODUCT OFFERED TO THE MOTORCYCLING PUBLIC

THE SINGLE CYLINDER

The Pierce Single Cylinder motorcycle, with its high powered, long stroke motor marks a notable innovation in one-cylinder construction. This is a machine which runs with an almost total absence of vibration, and for ordinary city or country use it has the quiet smooth action for which motorcycles to date have not been noted. But better than all this it is a machine which climbs the mountain side and does it with the same absence of labor which marks its running on level roads. Always smooth and easy running, always powerful to follow the steepest roadway—what more can be asked? We offer in every detail the best that "Piercecraft" affords.

The following general and special features will appeal to discriminating riders:

A motor of 5 H.P. having a long stroke (4″) Motor equipped with double annular ball-bearings; large tubing frame; magneto ignition; wide flat belt, with free engine effect; simple grip control.

The Pierce Agency, especially if the Bicycle line is included, offers, in itself, a profitable business for any progressive dealer to engage in. Our proposition, "The Agency That Pays," will be submitted to any dealer in open territory.

Ask for Catalog "G."

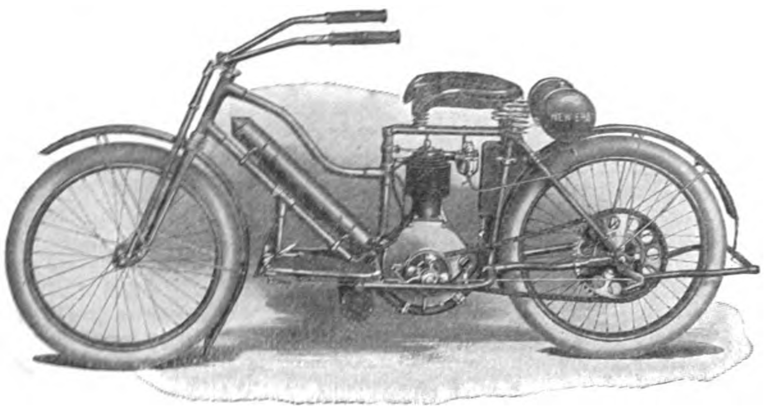
THE PIERCE CYCLE CO.

Pacific Coast Branch: Oakland, Cal. **Buffalo, N. Y.**

HAVE YOU NOTICED

How the Manufacturers of Motorcycles are tumbling over one another in their efforts to obtain Two Speed Gears and Free Motor devices? And do you know that it requires several years of experience to produce a practical and efficient two speed and free engine? If you don't you can easily make sure by buying a machine fitted with an untried two speed. But why pay so expensively for this knowledge when you can buy, as part of your

1910 New Era Auto-Cycle



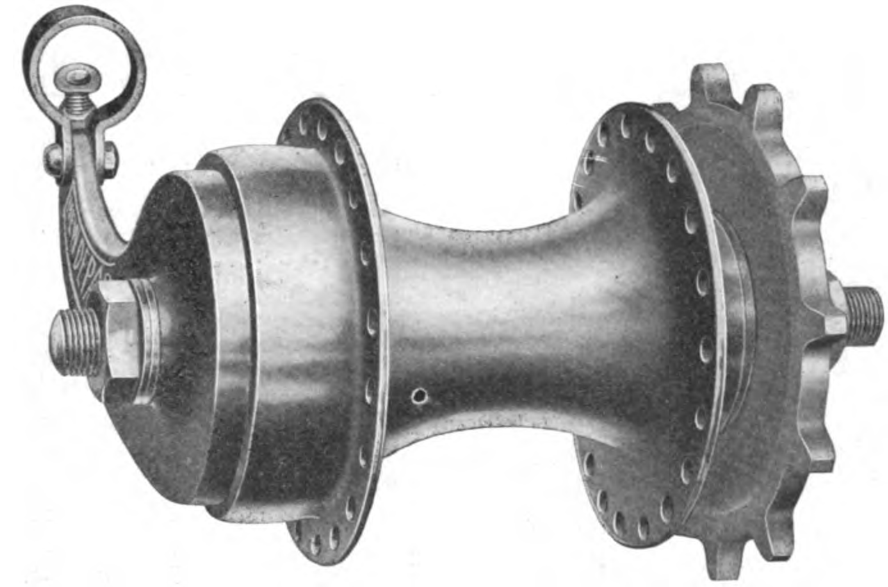
Patent Pending

Two Speed Transmission and Free Motor, motor started by means of a crank, no pedals, comfortable, upholstered Form seat and foot board, excellence of design, beauty of workmanship, power and endurance. The machine for both country roads and crowded city streets.

LIVE AGENTS, HANDLE AN UP-TO-DATE AUTO-CYCLE. The Two Speed isn't Simply Coming—it's already here, and right Here, in the New Era Auto-Cycle. Others will follow in our footsteps, but, Mr. Dealer, Isn't it Better to Lead? If you think so, and if you are wise, that Is Your Opinion. You will write for an Advance Circular and our Agency Proposition.

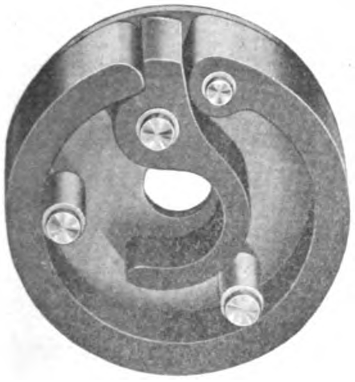
We will exhibit in space No. 614 at the National Automobile Show at New York, January 8 to 15, 1910.

The New Era Auto-Cycle Co., **7 Dale Avenue**
Dayton, Ohio



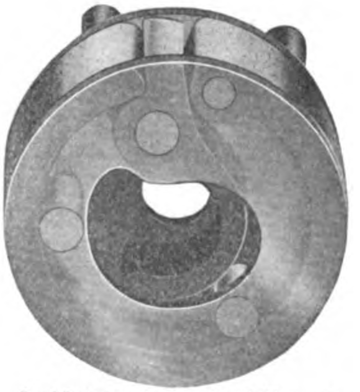
NEW NEW DEPARTURE

Internal Expanding Band Coaster Brake for Motorcycles is



Band Brake and Lever

POWERFUL
RACTICAL
OSITIVE



Band Brake showing top plates holding parts in position—transparent view

The New Departure is the last word is coaster brakes for 1910 motorcycles. Radical improvements have been made, bringing it abreast of motorcycle advancement. It is dependable under all circumstances, strong enough to stall the highest powered motors; cannot bind, lock, "feed up" the pedals or cut into the hub. Every test proves claims made for it and every user declares its unfailing efficiency.

When asking your dealer about the "NEW" New Departure, do not fail to tell him you want to see the internal expanding band coaster brake.

SPACE 524, BASEMENT MADISON SQUARE GARDEN SHOW

Write for Folder

THE NEW DEPARTURE MFG. CO.

Coast Brake Licensors BRISTOL, CONN.

Spencer and Gustafson on their Bosch Equipped Indians

BOSCH EQUIPPED MOTORCYCLES SUPREME DURING 1909

The Bosch Motorcycle Magneto made in several models has proven itself so efficient, reliable and powerful that it has become the standard equipment of high-grade motorcycles. Bosch Magnetos are the ignition equipment of the Indian, Thor, M. M., N. S. U., Reading Standard, Royal, Merkel-Light, and others; and the majority of important records of 1909 were made on Bosch equipped machines. Among many noteworthy victories in this field are the following:

1,089 MILES AND 199 YARDS IN 24 HOURS

This wonderful twenty-four hour world's motorcycle record was made by Spencer at Springfield, Mass., October 1st and 2d--he rode a 5 H. P. Indian, Bosch equipped.

At the same time and place Gustafson rode 1,043 miles on another Bosch equipped 5 H. P. Indian.

The previous amateur record against time was established by Collier at the famous Brooklands track in England, and his record was but 775 miles, 1,043 yards. He also rides a Bosch equipped wheel.

71 MILES AND 620 YARDS IN ONE HOUR

Fred. Huyck, on Labor Day, at Springfield, riding an Indian equipped with a Bosch Magneto added two miles to the hour record, and *established new records for every mile from ten to seventy-one.*

ENGLISH TOURIST TROPHY RACE

Of the nineteen motorcycles which finished in the English Tourist Trophy Race (Isle of Man, 1909) seventeen were Bosch equipped.

See our exhibits at the International and National Shows.

BOSCH MAGNETO COMPANY

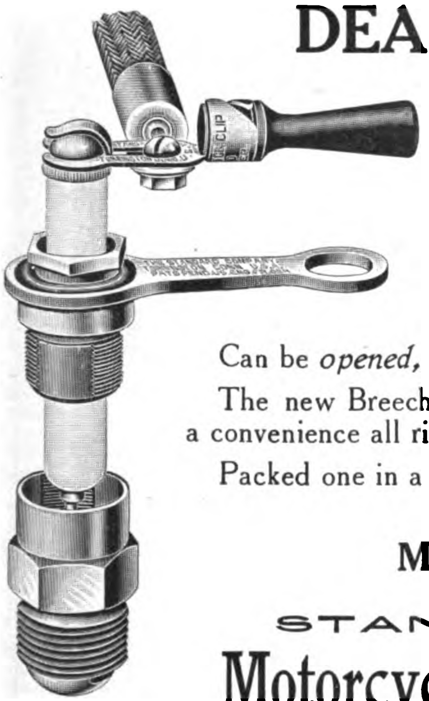
223-225 WEST 46th STREET, NEW YORK

***Chicago Branch:* 1253 Michigan Avenue** ***San Francisco Branch:* 357 Van Ness Avenue**

STANDARD-EQUIPMENT

FOR THE

MOTORCYCLE MANUFACTURER, DEALER AND RIDER



½STANDARD

The Breech Block Plug

A COMBINATION

SPARKER PRIMER COMPRESSION RELIEF

One sixth turn *opens* or *closes*. The push of a *finger* locks tight to 2,000 pounds.

Can be *opened*, *cleaned* and *closed* in *four seconds*.

The new Breech Block Clip with Insulated Handle prevents shocks and is a convenience all riders will appreciate.

Packed one in a box with new clip-screw-nut and directions.

PRICE

Mica, $1.25 Porcelain, $1.00

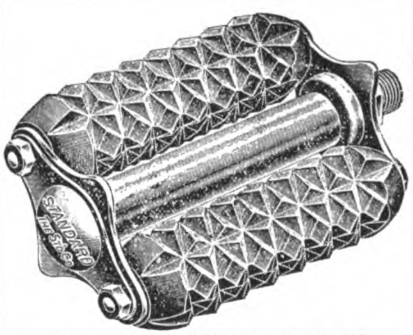
We recommend mica plug for motorcycle use

STANDARD

Motorcycle Pedals

Wide Tread Peaals combining *Comfort*, *Utility* and *Reliability*. Constructed of the *Best* materials by *Skilled Mechanics*.

PRICE, $3.00 PAIR



No. 3, Standard Motor Cycle Pedal

Emergency Axles, Sager Motorcycle Toe Clip, Diamond E <E> Spokes. Bridgeport, and Standard Pedals. Sager and Standard Toe Clips.

Send for our Descriptive Circulars

THE STANDARD COMPANY

Torrington, Conn., U. S. A.

NOT AN EXPERIMENT BUT A PROVEN SUCCESS

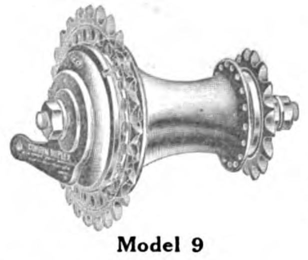
THE CORBIN BAND BRAKE

For Belt or Chain Drive Motorcycles is Superior to All Others in

Principle, Strength and Reliability

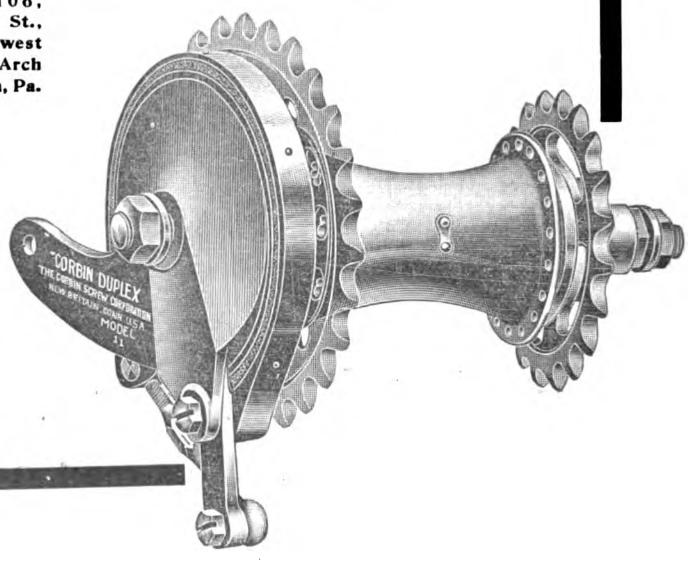
C-O-R-B-I-N SPELLS BOTH QUALITY AND WORKMANSHIP

AGENTS AND RIDERS— Handle and Use a Brake Whose Success Has Been Demonstrated by Thousands. Quotations on Request.



Model 9

WAREHOUSES—106, 108, 110 Lafayette St., New York; Northwest Corner Eighth and Arch Streets, Philadelphia, Pa.



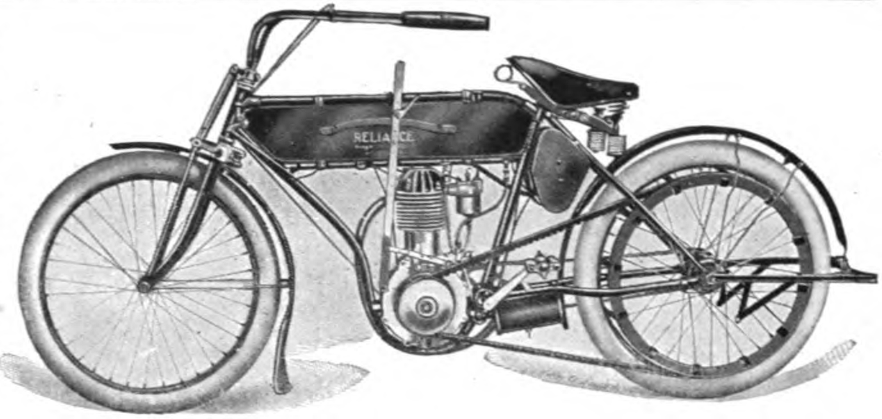
The CORBIN SCREW CORPORATION

Licensed Coaster Brake Manufacturers

NEW BRITAIN, CONN., U. S. A.

THE CORBIN SCREW CORPORATION
OF CHICAGO
107-109 Lake Street Chicago, Ill.

Here Is What You Have Been Looking For



A motorcycle with a neat, compact two speed and free engine pulley, that is simplicity itself in construction, positive in its action, whether in high, low or free engine position. **THINK OF IT!** Start engine on stand **ANYWHERE,** on the steepest hill or deepest sand, and then by just pushing forward a lever **YOU ARE OFF.** 5 to 1 on high, 9 to 1 on low.

Model C as above, complete with the two speed pulley, $225.
Write for complete specifications of this and our 4½ H.P. Single and 7 H.P. Twin.

RELIANCE MOTORCYCLE CO., 444 Main St. Owego, N.Y., Tioga Co.
Member Motorcycle Manufacturers' Association.

THE NATIONAL SHOW

UNDER THE AUSPICES OF THE NATIONAL ASSOCIATION OF AUTOMOBILE MANUFACTURERS, INCORPORATED

At CHICAGO, February 5-12

All Makers in one Brilliant Display

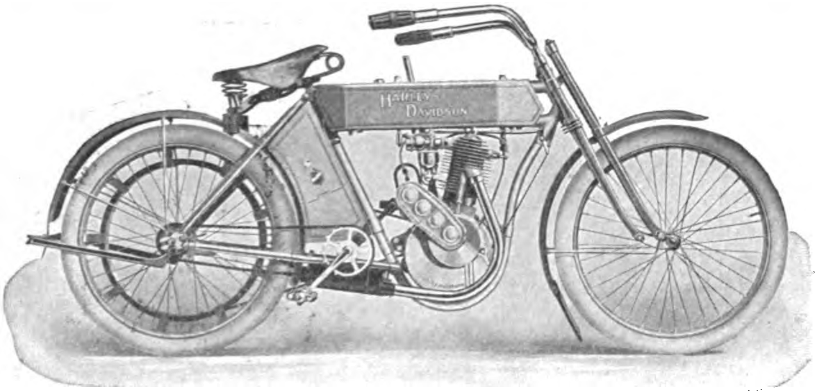
In the Coliseum and First Regiment Armory

One Hundred Exhibits of Cars : First Opportunity to see the 1910 Motorcycles : Latest Products of Leading Accessory Makers

S. A. MILES, Manager, 7 East 42d Street, New York City
Dealers are invited to apply NOW for courtesies of the Exhibition

Eight years ago the designers of

The HARLEY-DAVIDSON



STARTLED THE MOTORCYCLE WORLD by marketing a motorcycle equipped with a slow speed engine. Today the slow speed motor is

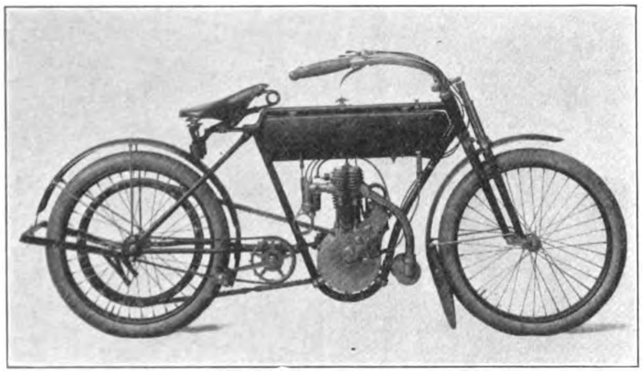
Recognized as Standard

The 1910 HARLEY-DAVIDSON is just as far ahead as ever, and embodies more points of **real merit** than any other motorcycle on earth.

Harley-Davidson Motor Co., Milwaukee, Wis.

The THIEM 1910 MODEL "E"

4 H.P. $3\frac{1}{4}$ x $3\frac{1}{2}$ Ball Bearing Motor



Many new and unique improvements. Model "E" represents a substantial advance in the Motorcycle Art. The evolution through which we have passed has emphasized features and improvements that are now embodied in our Model "E" that easily makes it the most improved Motorcycle made anywhere.

The Improvements are: Full Ball Bearing, Mechanically Operated Valves, Precision Oiler in addition to Pump in Tank, Magneto gear driven, special Spring Fork, Low saddle position, means for adjusting the Belt, and many minor improvements.

AGENTS WANTED EVERYWHERE.

THIEM MANF'G CO., Box 498, Minneapolis, Minn.

The

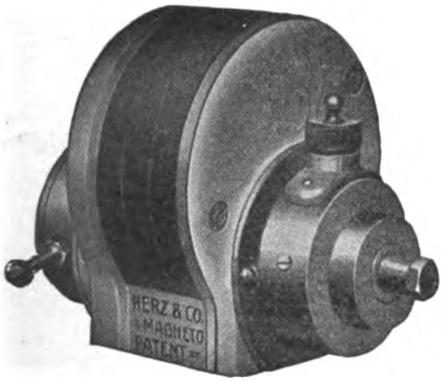
BEST MAGNETO

Ever Made!

THE

Herz High Tension Magneto

Is the Smallest, Lightest and Most Efficient Magneto Ever Made



The most perfect type of ignition obtainable. No starting device, timer, or coil required.
Generates a very hot spark and real arc flame.
A marvel of fine workmanship. All parts interchangeable.

THE STANDARD PLUG

OF EUROPE
AND AMERICA

THE

HERZ-PLUG

"BOUGIE MERCEDES"

Is proof against oil or soot; self-cleaning. Forms part of your motor, same as the pistons. Needs never to be taken out.

WE GUARANTEE IT FULLY For One Year

Price, Standard Motorcycle or Magneto Types

$1.50 Postpaid Everywhere

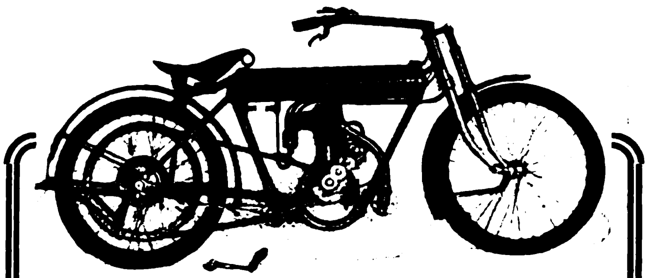
BOUGIE MERCEDES
HERZ & CO
NEW YORK

HERZ & CO., Civil Engineers.

Corner Lafayette and Houston Streets

PARIS NEW YORK VIENNA

FREE—Our New Ignition Booklet is Free WRITE FOR IT



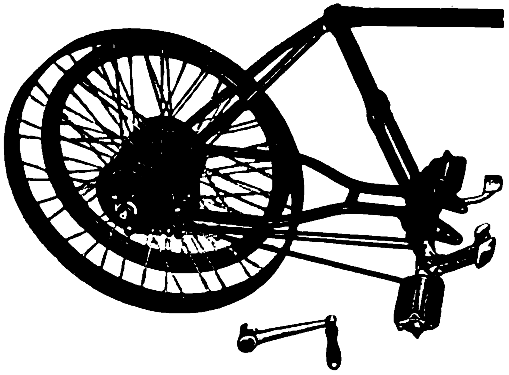
"TOURIST" TWO-SPEED

The rider who knows, will instantly recognize the carefully developed details by old experienced riders, in the lines and construction of the low-built, powerful "TOURIST."

We would like to mail our new 24-page catalog describing in detail the

- ***4 H. P. Ball Bearing Mechanical Valve Motor***
- ***Two-Speed and Free Engine Clutch***
- ***"K & R" Pneumatic Detachable Spring Forks***
- ***Interchangeable Rear Frame Members***
- ***Imported "B & B" Automatic Carburetor***

and other features that interest the rider who considers POWER, SIMPLICITY, RELIABILITY and COMFORTABLE RIDING POSITION in selecting a motorcycle.



ILLUSTRATING WEHMAN MODEL CURTISS
after being equipped with the

"K & R" CONVERSION SET

Convert your motorcycle into an UP-TO-DATE mount by attaching the "K & R" TWO-SPEED AND FREE ENGINE HUB.

These SETS furnished for attaching to ANY of the standard make belt drive motorcycles. Our complete 1910 catalog, fully describing the merits and construction of the device, now ready.

If we have had previous correspondence with you, your name is on our mailing list and catalog will be mailed you. If not, write TO-DAY for PRICES and AGENT'S PROPOSITION.

KELLER & RISQUE MOTOR CO.

Bridge Square, - - ST. PAUL, MINN.

The Neverout
TRADE MARK

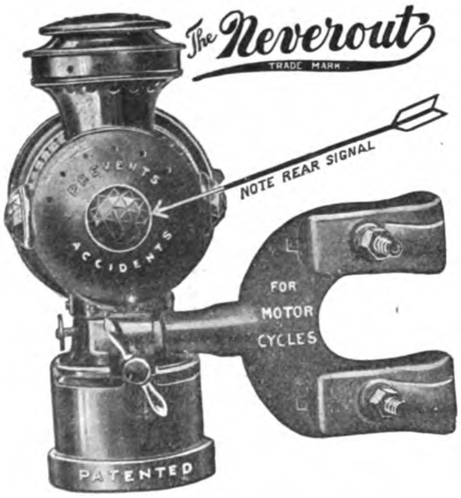
MOTORCYCLE OIL LAMP

SHOWING A RED REAR LIGHT

¶ The Noverout burns kerosene ten hours with one filling, and will stay lighted under any and all conditions. ¶ All riveted—will not rattle apart over roughest roads.

¶ Made in gun metal, brass or nickel finish

AN OIL LAMP THAT MAKES MORE LIGHT THAN MOST GAS LAMPS



Lamp Weighs Only 12½ Ounces

GUARANTEED TO STAY LIGHTED OR MONEY REFUNDED

¶ The Neverout is equipped with a PATENT GLASS COVERED REFLECTOR OF GERMAN SILVER, instantly removable, never loses its original brilliancy.

¶ The only perfect and reliable motorcycle lamp made.

¶ Double clamp bracket furnished, fastens lamp securely to fork of motorcycle. No danger of shaking off, and SHOWS RED REAR DANGER SIGNAL.

Sold by leading jobbers and dealers everywhere

ROSE MANUFACTURING COMPANY

933 ARCH STREET, PHILADELPHIA, U. S. A.

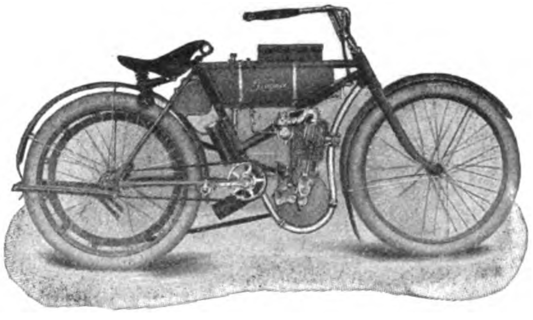
The Neveroat complies with the laws of the various States and Municipalities

Wagner

MOTOR CYCLES

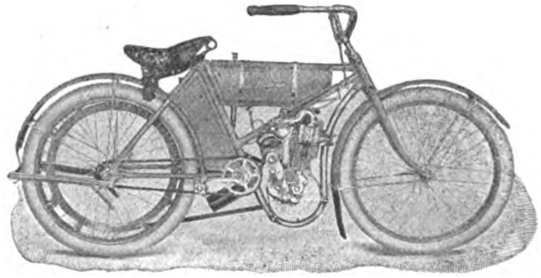
"Proven Quality"

19 FOUR MODELS 10



Incorporating

Diamond Loop Frame
Wagner Twin Fork
Genuine Shock-Absorbing Spring Fork
Battery or Magneto Ignition
"Wata-Wata" or Rubber "V" Belt
2¾ inch Tires, Etc.



Our New 1910 Catalog will interest the Prospective Purchaser. Our Agency Proposition, The Live Dealer.

WAGNER MOTORCYCLE CO

ST. PAUL, MINN.

ARE YOU LOOKING FOR THE BEST IGNITION?

The Cartridge Two Battery Coil has demonstrated the right to be placed at the head of the list.

The following points bear out its claims to superiority.

THE LIGHTEST COIL (weighs 30 ounces) and does away with the weight of one dry battery besides.

IT WILL run your machine surely 1,000 miles, and even as far as 1,500, on two batteries, if the timer is tightly adjusted.

IT WILL start your engine on the FIRST STROKE and will not miss at the highest racing speeds, and will put you over hills easily.

IT WILL go in your three-cell battery box (size of coil 2½ in.x5¼ in).

JUST take out the battery and put the coil in its place.

IT is made RIGHT and should last for years, as the most expensive materials enter into its construction.

We were tempted to offer this coil a year ago, but had not then tested enough of them in actual, hard service to be able to say that it was absolutely the best we could offer. But a whole year of testing under the hardest kind of conditions and with a large number of standard coils has failed to show results less satisfactory than the best magneto ignition.

If you need a coil for that last year machine of yours or for the one you are going to get, don't fail to order a CARTRIDGE COIL.

Send for one To-Day, and if you think there is anything better to be had after 3 months' use, send it back and we will refund the price you paid us.

We make this offer because we know that you will not part with it after 3 months' trial.

Price, $8.50

Cartridge Coil Company
LAFAYETTE, INDIANA

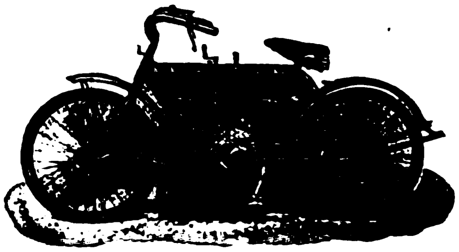
AGENT
RIDER
INTENDER

WAIT

Reserve your decision if you look for real value, until you investigate that

NSU

LINE OF
WORLD'S BEST MOTORCYCLES



Two Horse Power N. S. U. Roadster
Undergeared

We particularly draw your attention to the beautiful workmanship, the high quality of material and the real satisfaction particularly evidenced in the N. S. U.

The many individual features found only in the above motorcycles are worthy of your earnest consideration; they are responsible for the cry

"To ride the N. S. U. means
to get there and get back
at the time desired."

Whoever is looking for a real sensible TWO SPEED motorcycle will do well to visit the N. Y. Show, space 603, and compare.

Meanwhile get catalog "M."

N. S. U. MOTOR COMPANY
Members M. M. A.
206 West 76th Street NEW YORK

Empire Tires

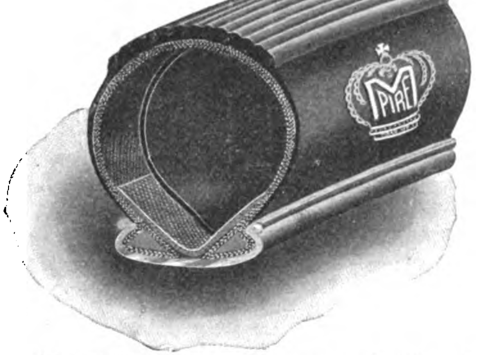
WEAR LONGEST

**PEERLESS
V BELTS**

**PEERLESS
BUTT END
TUBES**

We will exhibit at N. Y., Chicago and Boston Shows.

Motorcycle Tire—Checkered Tread



Motorcycle Tire—Corrugated Tread

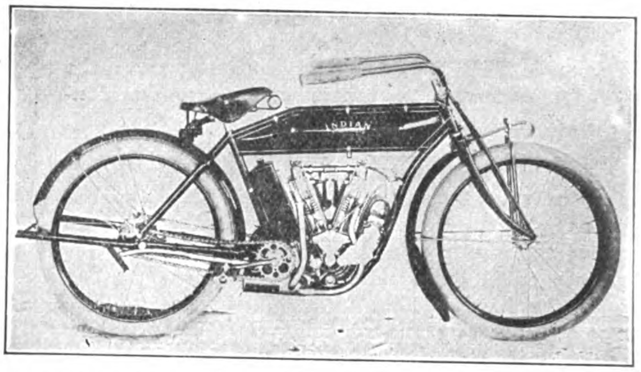
EMPIRE TIRE COMPANY TRENTON, N. J., U. S. A.

BRANCHES AND AGENCIES EVERYWHERE

FULL LINE OF SUPPLIES

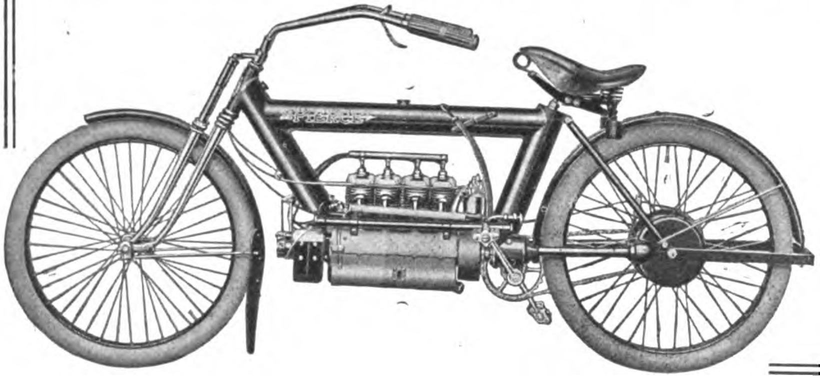
Complete Stock of Indian Parts

Get our Catalogue



Greater New York Distributors for the

INDIAN AND PIERCE



We have absolutely everything a motorcyclist needs or wants

F. A. BAKER & CO.

37 Warren Street
NEW YORK CITY

The Goodrich
Motorcycle "Tourist Grip"

THE CORRUGATIONS are well shaped to make a reliable gripping surface. They are large and strong and do not wear down easily.

THE FLARED ENDS keep the hands from slipping off, so that the rider can sit up comfortably.

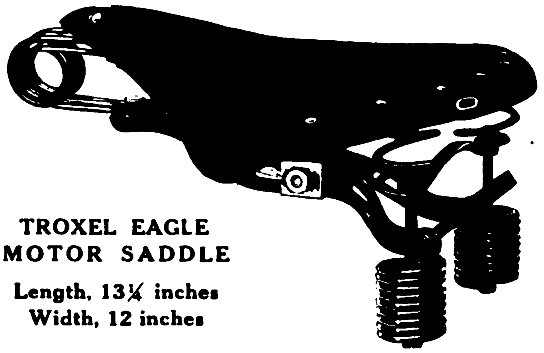
THE MOST DISTINCTIVE FEATURE is the fabric reinforcement in the curve, at the end of the handle bar. This prevents breaking or splitting at that point, and gives the grip longer life.

The standard size fits a one inch handle bar. The length of the grip is eight inches and it sells at $1.50 the pair.

THE B. F. GOODRICH COMPANY, - Akron, Ohio

EASE, COMFORT AND DURABILITY

Are essential in good
MOTORCYCLE SADDLES



TROXEL EAGLE
MOTOR SADDLE
Length, 13¼ inches
Width, 12 inches

These qualities are developed to a high degree in

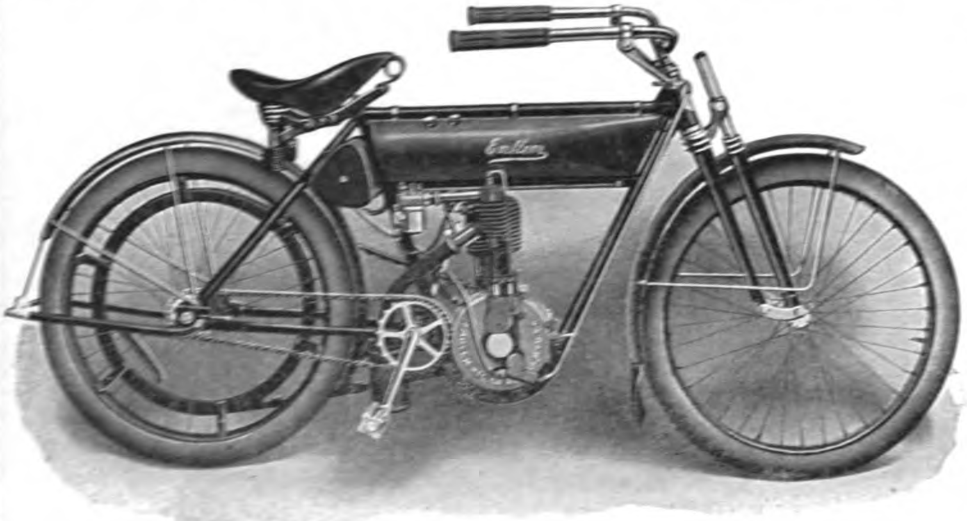
Troxel Eagle Motor Saddles

The joys of Motorcycling are really appreciated when one's machine is equipped with a TROXEL. A good proposition, too, for live agents. Catalogue and full particulars on request

THE TROXEL MANUFACTURING CO., ELYRIA, OHIO

CLASS, STRENGTH AND SPEED

Are all Conspicuous in the 1910 EMBLEM



Our New Model, the 7 H. Twin

Completes a Trio of the Best Machines for the Prices on the Market.

Fitted for both V and flat belts; 55 in. wheel base; battery and coil tank occupying the entire space between the seat mast and the rear wheel guard; the front lower main tube is slightly curved to conform with the curve of the front wheel guard; magneto if desired.

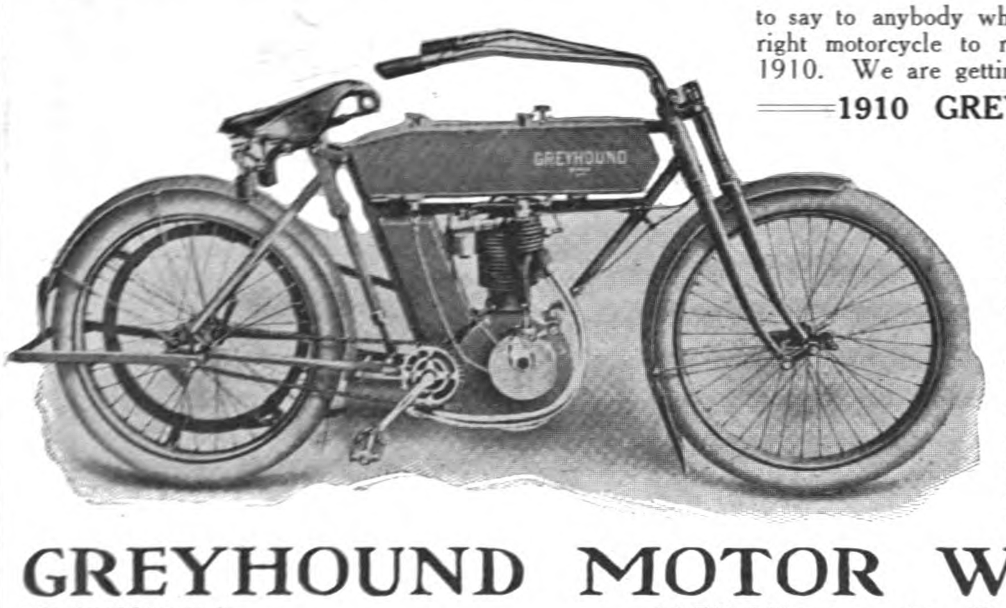
Write for our catalogue and our Agency proposition

EMBLEM MANUFACTURING COMPANY, - ANGOLA, N. Y.

WE HAVE SOMETHING

to say to anybody who wants to find the right motorcycle to ride or to sell for 1910. We are getting results from this

1910 GREYHOUND



of the kind that all the makers have been striving for, and one chief problem now is that of facilities to make them fast enough.

Orders and deposits are rolling in, and we are pushing the factory to its highest safe speed with every prospect of splendid success. We want your address.

GREYHOUND MOTOR WORKS

Member Motorcycle
Manufacturers' Association

1459 Niagara St., Buffalo, N. Y.

SALES AGENTS: Metropolitan District—BROWN-DEWEY CO., 1697 Broadway, New York, N. Y.
Chicago District—WHIPPLE, "The Motorcycle Man," 913 W. Jackson Blvd., Chicago, Ill.

1910 PITTSFIELD 1910

SPARK COILS, SPARK PLUGS, SWITCHES, TIMERS AND DISTRIBUTERS AND MAGNETOS

MADE IN AMERICA ***HAVE NO SUPERIOR IN THE MARKET***

Magneto Spark Plug

The following testimonial was recently received by the Pittsfield Spark Coil Co., unsolicited.

"Columbus, Ohio, Oct. 11th, 1909.

"PITTSFIELD SPARK COIL CO.,
"Dalton, Mass.

"Gentlemen:—

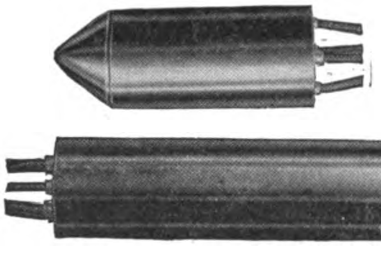
"I think you will be interested to know I am using the best coil "PITTSFIELD," on my run from San Francisco to New Orleans and New York.

"I have covered 5,763 miles, 2,022 on railroad cross ties, and have had a terrible trip. Have been out thirty-seven days and had no ignition trouble. Your coil has stood unreasonable endurance, exposed to water, heat and cold in many States.

"I am an old-time rider and one who knows a good thing.

"Yours truly.
(Signed) "H. F. MERIWEATHER."

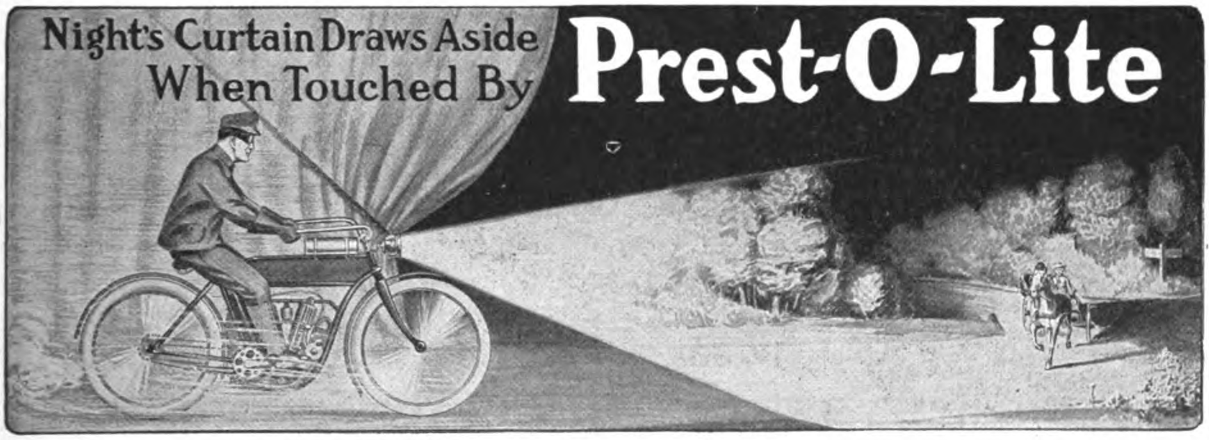
A Line of Pittsfield Goods is carried by H. V. Greenwood, 166 Lake Street, Chicago



Write today for particulars, catalogues, price lists and instructions.

PITTSFIELD SPARK COIL CO., Flansbury Ave., Dalton, Mass.

Sales Representatives: New England, W. J. Connell, 36 Columbus Avenue, Boston. **Atlantic States,** Thomas J. Wetzel, 17 West 42nd Street, New York. **Central States,** K. Franklin Peterson, H. V. Greenwood, 166 Lake Street, Chicago. **Michigan.** L. D. Bolton, 319 Hammond Building, Detroit. **Pacific Coast,** The Laugenour Co., San Francisco.


Night's Curtain Draws Aside When Touched By
Prest-O-Lite

Over 100,000 automobile owners use Prest-O-Lite. Most of these have learned, through sorry experience, that feeble oil lamps and treacherous generators are sources of trouble, danger and expense.

Motorcyclists, with the same old lighting problem, are reaching the same solution.

With Prest-O-Lite there is no uncertainty, no dirty work, no spurts of light, no intervals of darkness.

The road is flooded with light. The flame is steady, no matter what the bumps. Turned on and off like a gas jet.

The Prest-O-Lite Motorcycle Gas Tank is 12 in. long and 4 in. diameter. Weighs 7 pounds. Holds 10 ft. of gas—40 hours of light.

PRICE $10 **FULL TANK 75c.** (In Exchange for Empty)

Thirty-day trial plan. See your dealer, or write us.

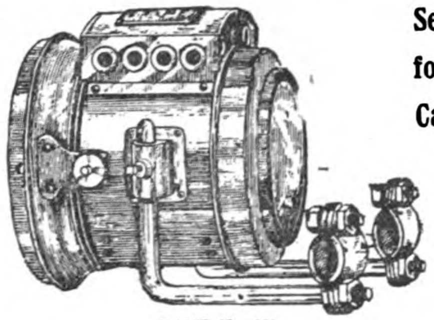
The Prest-O-Lite Co., 246 E. South St., Indianapolis, Ind.

Branches at New York, Boston, Philadelphia, San Francisco and Cleveland. 3,000 Exchange Agents

This tank can also be used on automobiles as a reserve supply, carried in the tool box

20TH Century MOTORCYCLE Searchlights

1910 MODELS



LAMP No. 102

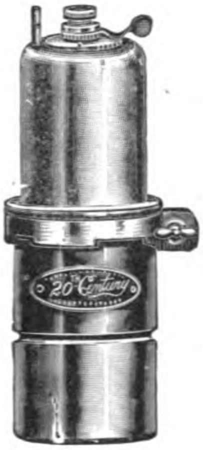
Brackets for Handlebars or
Extension Forks.

**Send
for
Catalogue**

Generator No. 10 fitted
with basket for carbide.

Capacity 10 oz.

Sold by all Representative
Jobbers and Dealers.



20th CENTURY MFG. CO., 19 WARREN ST.,
NEW YORK

Something Coming? Yes.

Something of a surprise to motorcyclists

The 1910 Minneapolis Two-Speed

WITH SEVERAL NEW EXCLUSIVE FEATURES ADDED

Will be fully described in the next issue of Motorcycle Illustrated. You cannot afford to place your order for a machine without first looking up the **Minneapolis Model K.** It employs the 4 H. P. Thor motor.

MINNEAPOLIS MOTORCYCLE CO.,
517 South 7th Street **MINNEAPOLIS, MINN.**

THE TIME IS PAST

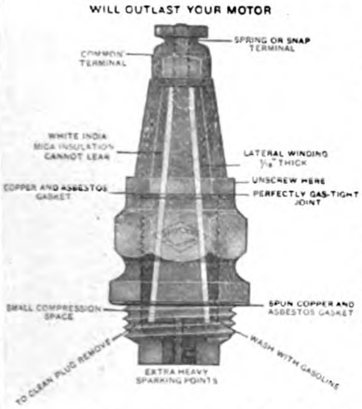
when ignition troubles and uncertainties are a daily part of every motorcyclist's experience.

THE PRINCIPLES AND CONSTRUCTION OF THE

SPLITDORF

Motorcycle Plug

Completely e'iminate all doubt of poor ignition.


WILL OUTLAST YOUR MOTOR
SPRING OR SNAP TERMINAL
COMMON TERMINAL
WHITE INDIA MICA INSULATION CANNOT LEAK
LATERAL WINDING 1/8" THICK
UNSCREW HERE
COPPER AND ASBESTOS GASKET
PERFECTLY GAS-TIGHT JOINT
SMALL COMPRESSION SPACE
SPUN COPPER AND ASBESTOS GASKET
TO CLEAN PLUG REMOVE
WASH WITH GASOLINE
EXTRA HEAVY SPARKING POINTS

Why not get all the pleasure possible out of your mount by using a SPLITDORF Plug in your engine—one that is made expressly for the Motorcycle and guarantees Perfect Ignition every day in the year?

At all live dealers or from us direct.

C. F. SPLITDORF

Walton Ave. and 138th St. New York
Branch, 1679 Broadway

NEW MARVEL MOTORCYCLE

Mr. Agent:—You cannot afford to allow the other fellow to sell this motorcycle in your locality, because it is a *"Marvel."* For details see us at space 620, N. Y. Show, or watch this paper for detailed information.

MARVEL MOTORCYCLE COMPANY

HAMMONDSPORT, N. Y.

The Curtiss line for 1910 offers you more dollar-for-dollar value than you have ever had.

SINGLE CYLINDER 4 to 5 H.P. $200

DOUBLE CYLINDER 8 to 9 H.P. $275

Stand and Spring Forks (regular equipment) Magneto Ignition $25

The Greatest Roadsters on Earth

The Reasons Why:

- Big, powerful, smooth running engines that never falter
- A frame and equipment that is unsurpassed for neatness and strength
- Mechanically operated valve in-the-head motors. (One push rod, one cam)
- Large diameter fly-wheels
- Off set cylinder
- New "constant level" oiling system
- 1 1-8 inch belt
- 2 1-2 inch tires
- Persons Tool Bag

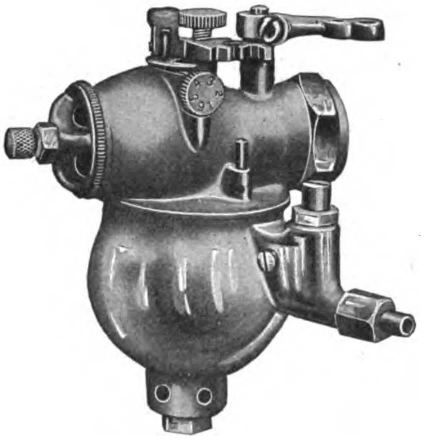
Territory is being alloted rapidly. Better act quickly and get ahead of your competitor. Ask for Catalog "M" and Agency Proposal, or see us at the Madison Square Garden Show, Space 607

The HERRING-CURTISS CO., Hammondsport, N. Y.

Member M. M. A.

523464

Heitger Model F
1910 Motorcycle Carbureter



¾ inch Female threads, cut ½ full size.

It has mechanical control of gasoline feed to mixture, independent gasoline adjustments for both low and full speeds, indexed adjusting screws, throttle universal, can be set to operate from either side, straight line gasoline connection, new design float chamber, can be swiveled to any position, its shape reduces splashing of liquid to the minimum, handy priming stem, improved, durable, reliable air valve, all gasoline adjusting screws indexed, and ball rachet retained, all balls and springs of bronze.

¾ inch female pipe threads. List $10.00. Fully guaranteed.

HEITGER CARBURETER CO., Indianapolis, Ind. 208 West South St.

Being Adopted by Manufacturers for 1910.

"I WANT THE SPARK IN WATER PLUG" SAYS THE MAN WHO KNOWS—
he takes no other.

$1.00

Reliance
SPARK PLUGS
SPARK IN WATER

RELIANCE—$1.00

buys the best spark plug on the market today. Our enormous output has reached the point where we can reduce the price, yet keep the same value in the production of the plug.

If you have not already given the RELIANCE a trial—don't hesitate—you're not enjoying perfect ignition unless you have. The "SPARK IN WATER" feature is proof that it can't short-circuit. Carbon or soot have no effect and we can tell you of other interesting features by asking for our interesting booklet.

RELIANCE MAGNETO PLUG is the latest addition to our list, brought out to meet an insistent demand for a magneto plug built along Reliance principles. It is also recommended for use where an excessive amount of oil is used. $1.25 everywhere.

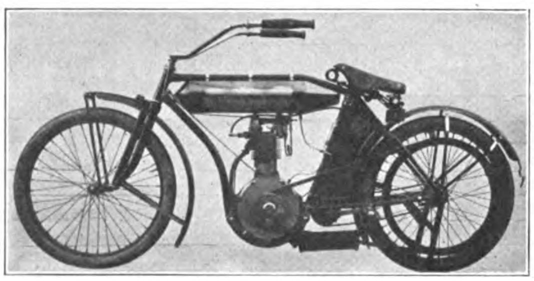
JEFFERY-DEWITT CO.
Spark Plug Manufacturers
230 HIGH STREET NEWARK, N. J.

S. & F. Stephenson, Agents for United Kingdom, 19 Canning Place, Liverpool, Eng.
Armand, Frey & Co., Agents for Continental Europe, Berlin, Germany.

C. V. S. Motorcycle

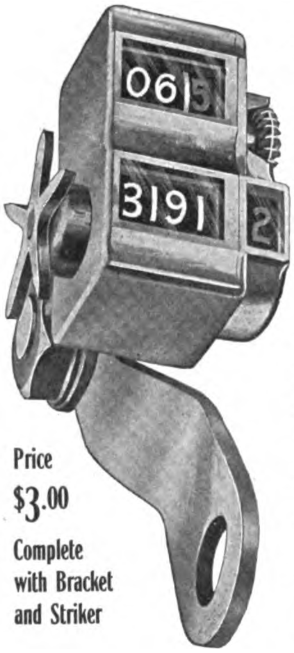
SOLD ON ITS MERITS AND UNDER A GUARANTEE

¶ We have caught up with our 1909 orders, and can make prompt delivery of 1910 Models.



We make our complete machines at our own Works
Sole Agents for the HEITGER CARBURETFR

C. V. STAHL MOTOR WORKS
OFFICE AND SALESROOM
N. E. Cor. 29th and Diamond Streets, PHILADELPHIA, PA.
WILL EXHIBIT AT THE PHILA. SHOW JAN. 24th TO 31st



Veeder
Motorcycle Trip Cyclometer

Price
$3.00
Complete
with Bracket
and Striker

Made heavy and durable for the hard usage it receives on the Motorcycle.

Adjustable Bracket fits all makes of machines.

Large and strong striker.

Made for 24 in., 26 in. and 28 in. wheels.

The Veeder Mfg. Co.
42 Sargeant St., Hartford, Conn.

Makers of Cyclometers, Odometers, Counters, Tachometers, Tachodometers and Die Castings

PFANSTIEHL COILS

FOR MOTORCYCLES ARE GUARANTEED FOR FIVE YEARS

The Famous Pfanstiehl Pancake system of winding, combined with a perfect balance of parts, and high grade construtcion, assures you of INDESTRUCTIBILITY, UNIFORMITY, RELIABILITY, and a strictly high grade coil at a reasonable price.

Constructed for use in connection with either 2 or 3 dry cells. Balanced to meet special requirements.

The New Pfanstiehl Motorcycle Magneto

FILLS A LONG FELT WANT

Strong and substantial in construction, though neat and compact in appearance.

Constructed by Pfanstiehl patented methods and covered by Pfanstiehl broad guarantees.

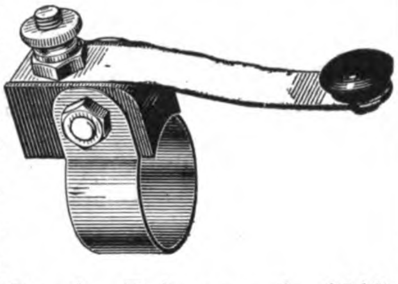
Not an experiment, but something a little more advanced than anything you have yet seen.

Don't fail to test this machine before closing contracts. Our prices will command your immediate attention and interest.

Pfanstiehl Electrical Laboratory
NORTH CHICAGO, ILL.

Try WIDMAYER

When you need anything in the Motorcycle line—prompt service—prices right. Magneto cut-outs are the craze. Prices 75 cents to $1.25. Send us your name and address for the most complete Motorcycle supply catalogue ever issued. Ready February 1, 1910.



Agents for Indian and Excelsior Motorcycles

Power equipped repair shop
Experienced men

Second hand machines $50 up

FRANK B. WIDMAYER COMPANY
2312 Broadway New York City

SOME—One —Time —Where

May make a Motorcycle as good as the

BRADLEY MOTORCYCLE

But they cannot make a better one

THIS — NEXT — or any — OTHER— YEAR

BRADLEY MOTOR COMPANY
268 Diamond St., Philadelphia, Pa.

Look for it at Philadelphia Show January 24th to 31st

DETROIT, MICH.

HOTEL NORMANDIE

CONGRESS STREET
NEAR WOODWARD AVENUE

150 ROOMS
50 ROOMS WITH PRIVATE BATH

Hot and Cold running water and telephone in all rooms. Restaurant and cafe in connection—moderate prices.

AMERICAN PLAN, $2.50 UP PER DAY
EUROPEAN PLAN, $1.00 UP PER DAY

GEORGE FULWELL, Prop.

Duckworth Chains and Duckworth Connecting Links

——Make a Strong Combination——

Be Sure to Specify Duckworth.

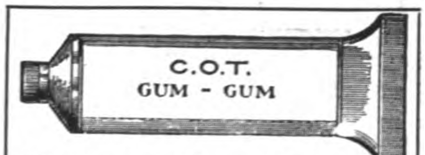
Duckworth Chain & Mfg. Co., 40 Mill Street, Springfield, Mass.

It Takes Experience To Build First-Class Speedometers

Jones built the first one, and he has been improving them ever since. See that you get the Jones Speedometer

JONES SPEEDOMETER DEP'T,
UNITED MANUFACTURERS, Inc.
Broadway and 76th St., New York

McLaughlin & Ashley
2384 Broadway, N. Y. Tel. 3141 Riverside
N. S. U. and Merkel Motorcycles
1910 Models ready for delivery
Expert Repairing at Reasonable Rates.
Storage **Parts and Accessories**



C. O. T. Gum-Gum. Ask your dealer how nicely it repairs digouts in your auto shoe. For sale by jobbers.
CHAS. O. TINGLEY & CO., Rahway, N. J.

MILES PER HOUR
10
20
30
40
50
60
STANDARD
SPEEDOMETER
MADE BY
PARKER MFG. CO.
BOSTON
PAT. APPLD. FOR

STANDARD SPEEDOMETER
Price $15.00

INDIAN AGENTS, ATTENTION

We have perfected an attachment for the 1910 Indian Spring fork and are now making deliveries.

The "STANDARD" is the only speedometer that can be used with this new fork.

We have patents pending on this construction.

Every dealer should send for catalog and prices, and equip his demonstrating machine at once.

We can furnish attachments for every other type of Spring Fork machine.

STANDARD THERMOMETER COMPANY
65 Shirley Street, - - - BOSTON

MILES PER HOUR
10
20
30
40
50
60
TOTAL
1
3
5
7
4
TENTHS
STANDARD
SPEEDOMETER
PARKER MFG. CO. BOSTON, U.S.A.
PAT. APPLD. FOR

SPEEDOMETER-ODOMETER
Price $20.00

M. M.

Motorcycles

1910 MODELS

READY FOR DELIVERY

Call and be convinced that we give you far greater value for the money than you can possibly find anywhere else.

American Motor Co.

10 West 60th St., N. Y. City

G. P. Jenkins, Manager

TIGER CYCLE WORKS CO.

782 8th Ave., New York City

ROYAL PIONEER MOTORCYCLES

---

25 Second Hand Machines

(All Makes——All Prices)

And Everything for Motorcycles and Motorcyclists in the line of Supplies

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Official F. A. M. Repair Shop

(TRY US—WE DEAL ON THE SQUARE)

One-half Actual Size

The Baby "Breeze" CARBURETER

For Motorcycles, made of polished aluminum, small parts of brass, weighs fourteen ounces; small in size, big in results; price ten dollars. Durable, light and strong—a handful only—special connections for popular machines included in price; 80 to 95 miles per gallon under normal road conditions. Write for special literature. Send ten cents for our Engine Trouble Text-book.

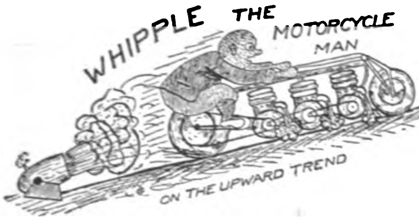
Breeze Carbureter Company
266 Halsey St. Newark, N. J.

Designed by a Practical Motorcyclist

The New Dover Motorcycle Funnel

is especially adapted to this use. Heavily copper plated, with a fine brass strainer, it fits any tool bag or can easily be carried in the pocket. **Price 50 cents.**

Dover Stamping & Mfg. Co., Cambridge, Mass.



The best in the world is none too good for our customers. Motorcycles and accessories at lowest prices. Pierce 4 cylinder, $350; Indians, nine models, $175 to $325. Good second hand, all kinds, down to $40. Send for our sundry catalog.

WHIPPLE *THE MOTORCYCLE MAN*
260 W. Jackson Blvd., CHICAGO

This Style $1.50 per Pair.

HANSEN'S AUTO and DRIVING GLOVES

Perfect fitting, wonderfully soft and pliable and wear like iron. Write today for handsome descriptive price-list and circular.

O. C. HANSEN MFG. CO.
337 East Water Street
MILWAUKEE

MAIL THIS TO-DAY

E. M. ESTABROOK,
Chairman F. A. M. Membership Committee,
76 Lincoln Street, Bangor, Me.

Dear Sir: I feel that I ought to be a member of the F. A. M. We must have a national organization to promote motorcycling and to guard and care for its many interests. Please send me particulars.

(Signed)____________________

State ____________________

City ____________________

Street ____________________

A NEW $1.50 MAGAZINE FREE

Send us your name for a free copy. Also ask for our bargain list of motorcycle parts. We have the largest accessory stock in America and every part Guaranteed.

MOTORCYCLE EQUIPMENT CO.
1 LAKE STREET HAMMONDSPORT, N. Y.

MOTORCYCLISTS

Here is the Long Service--No Trouble Tire

Not an experiment, but a proven success. Reduce your tire expense by using the only tire which is puncture-proof and has a **guaranteed** mileage.

A combination tire of the best rubber and fabric foundation vulcanized to an outer casing of pliable but impervious leather. This wonderful leather is proof against blowouts and punctures, and it grips the road. Safety and service combined. Send for description and price today.

The KING LEATHER TIRE CO., 3427 Vliet Street
Milwaukee, Wis.

NEW EDITION—JUST OUT

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MOTORCYCLE ILLUSTRATED

Vol. V. No. 2. January 15, 1910

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BIG AND WONDERFUL SHOW

Surpasses All Its Predecessors From Every Point of View—General Impressions Created By a Tour Through Motorcycle Row.

THE New York Show is as huge as it is beautiful. It opened at the Madison Square Garden on Saturday evening, Jan. 8, and will run until Saturday evening, Jan. 15. The Garden is really not a garden, as many people know, though a few do not. It is simply a classic building occupying a square block in the heart of New York City, standing silently and solemnly under the shadow of the tremendous Metropolitan Life tower, and for years past it has been the scene of all New York's classics in the show and sporting line. As soon as one struck the entrance, which is a tiled ascent of fine dimensions, the extreme modernism of the Motor Show hit one right in the eye. There were scores of policemen, groups of pages in scarlet costumes, ticket takers, entrances for exhibitors as well as others, hundreds of multi-colored lights which made the thing brighter than day, and above all there was a tremendous buzz that spoke of movement, vitality.

As you passed through the curtained portal which gave way to the main arena the effect was one of startling beauty. The chief thing about this arena is the tremendous impression it gives of width and height. The main floor is crowded with cars, each one as carefully groomed and tended as a crown jewel. The aisles are broad and there is no such thing as a crowded, jumbled effect. In fact, it is the expansivity of the thing which most appeals. Here, surrounding the arena, which is almost one of the largest roofed-in enclosures of this country, and whose beauty has never been equalled by the architects of any other great American buildings, is gallery after gallery along which are the sundry and other exhibits, but so carefully and artistically arranged that the thing looks more like a scene set for a gala day than it does like an exhibit of horns, lamps, tires and a thousand and one other things.

Before dismissing this feature of the show let it be said that the cars are the very last word in automobile construction. They are groomed to a finish, and when the lights are turned out and the entire arena is swathed in white sheeting, the effect is simply wonderful. It is impossible to say how many of these cars there are, but all styles are represented and they number up into the hundreds. In the accessory division there are perhaps three hundred firms showing their wares. All these facts are printed in a catalogue, and have been made much of in the daily papers. Suffice it to say that the thing is simply gigantic.

Stairways at suitable points lead downstairs. In this case "downstairs" means a tremendous area curtained off and aisled like a veritable labyrinth. The motorcycle man naturally finds his way to Motorcycle Row, and is kept so busy there that the rest of this vast cobweb is left unexplored; at least that was the case with the writer. Motorcycle Row is roofed, walled and arranged so that barring the filtering in of a bit of daylight, it looks almost as presentable as the upstairs part, though, of course, it is limited in extent and the percentage of oxygen is practically nil. But taking it all in all, Motorcycle Row is rather attractive and amply fulfills its purpose. When there are within one building nearly half a thousand exhibitors the motorcycle folk must expect to cut a very small figure in the general scheme. However, as some of them said, the day may come when "we" will occupy the arena while some other baby trade will hold forth in the byways.

Of the forty and odd firms who manufacture motorcycles nineteen firms exhibited. These included most of the old stand-bys while among the newcomers were the Marvel, Racycle and S. D. Throughout the week the show was crowded day and night with interested sightseers, who listened eagerly to the scores of young men who were brought from the road and from the factories to talk about the merits of the machines they represented. Beside the general public, many agents were present from all parts of the country. Among the people who circulated along Motorcycle Row were many accessory salesmen, who left their booths upstairs to come down and talk their products to the various purchasing agents and principals.

The general spirit along the row was one of optimism. Most all the firms represented have arranged for greatly increased output for 1910, and they seem to have no fear that there will be a possibility of over-production. The newcomers report that the interest taken in their machines was most satisfactory. Many firms of small size and of only fair capacity reported that their output for the season was practically disposed of. Outside observers, men who sell the trade lamps, tires and equipment, report that the motorcycle trade, after careful investigations made by them, is showing greatly increased strength. It is this outside opinion which is the most valuable in forming an idea of conditions.

GENERAL REVIEW OF THE EXHIBITS

Technical Features Worthy of Note—Gleanings in the Course of a Leisurely Stroll Down Motorcycle Row at the Garden —By Rolland C. Laurie.

IN like manner unto the daily journal reporter, I strolled into the "glitering arena" of the Garden Show. Space does not permit me to describe the gold-plated marble fittings at the booth of MOTORCYCLE ILLUSTRATED, and, being only a moderate liar, perhaps it is as well.

Some newcomers were present, the neat design of the Racycle being very striking, not to mention the imported Brown & Barlow carbureter which is fitted.

In finish, gray seems to be the most popular color, to judge from the exhibits, and the Excelsior and Racycle, notably, have taken to the British style of panelling the tanks in carmine and green respectively, which certainly imparts some mystic finishing touch to the "tout ensemble," as Chadeayne would say after his Continental tour.

The new Pierce single cylinder is a nice piece of work and its lines are very neat. An idler is employed on the drive belt and magneto ignition is standard. The bore and stroke of this model are 3½ x 4 ins., the length of the stroke being noticeable. This should make a fine machine for hill-climbing, and, coupled with the larger mechanically-operated valves, the Pierce single ought to prove a flyer. In this model New Departure ball bearings are used in the crankshaft bearing at the connecting rod, also at both bearings at the ends of the crankshaft. A two-speed sliding gear appears in the four-cylinder shaft-driven model, with the operating lever situated at the right hand side of the frame, this being provided with a lock for the gears in any position. The clutch is on car lines, being of the multiple disc type. The lubrication on this model is by force-feed gear pump, the mechanism being located in the forward part of the crank-case and fed by oil taken from a well in the center of the base chamber. The flow of oil is therefore self-regulating and the whole mechanism is automatic. On the single cylinder type force-feed splash lubrication only is used.

I have already touched upon the new 4 h. Thor in the recent report of the Show at Atlanta. There is little to add, save that I should like to see this model entered in next year's Tourist Trophy Race in England. It looks a speedster all over and should make a good showing in a give-and-take course over a hilly route. Though the engine is of 4-h. rating, the actual power delivered to the rear wheel is 4.75. The bore is 3.25 and the stroke 3.60, with a 24-lb. flywheel to boot. The timing gears are remarkably accessible, being enclosed in a very neat case on the outside. The muffler is of the cylinder type, with a long extension tube which runs out to the rear axle. The cylinder and head are neatly cased in one piece. The whole engine is very accessible and quickly detached. The loop of the frame is lower and the wheel base has been increased two inches. The frame has been lowered to accommodate the longer-stroke engine, and the increased wheel base gives steadier running. An excellent feature is the knockout axle on the front wheel. A fine mechanical oiler is fitted, this being gear-driven and of the centrifugal type.

Now I come to our old friend Curtiss. He is so much above us now that he has grown wings, so to speak; but I find that general improvement in the Curtiss motorcycle has not been overlooked, in spite of the sky-trust. True, we do not find "aillerons" or flexible wing-tips to the mudguards, but I am pleased to note a healthy-sized front flap fitted to protect the magneto. The two-cylinder 8-9 h. is an ideal machine for side-car work. The roller bearing motor has a bore and stroke of 3¼ x 3⅝, and the valves are of very large diameter, actually 1 11/16, and made from imported steel. A 1⅛ V belt is used for transmission, this being an accurate 28°. The lubrication is effected by a reservoir in which a float automatically regulates the oil level. The spring fork is standard on this model and has been materially improved.

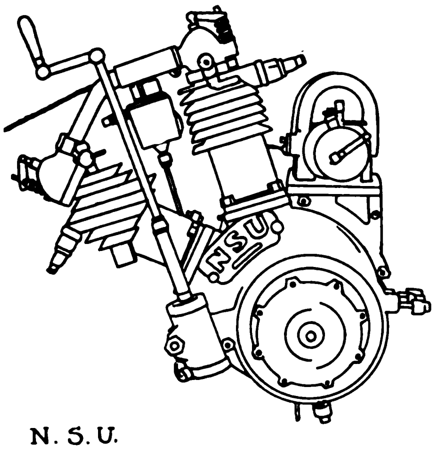
The single cylinder type is rated at 4-5 h. and has a 3¼ in. bore by 3⅝ in. stroke. This engine is noticeable in that the cylinder is offset, similar to the design of many automobile engines. The claim for this type of construction is that the side-thrust between the piston and cylinder walls is reduced, thus equalizing the total thrust during the stroke, with the tendency of an even distribution of wear on the cylinder walls and the consequent minimizing of frictional losses. This construction was originally introduced in the Clément Bayard automobile, and it is interesting to note that at the recent Stanley Show some examples of this design were staged. The "overhead" type of valve, both for inlet and exhaust, are used on the Curtiss, the reduction of moving parts being very noticeable, as but one cam and push-rod are required, the push-rod being relieved of all strain by the interposition between it and the valve of a lifter-lever fitted with a hardened steel roller. This push-rod is jointed at the lower end for convenience in assembling, and is adjustable at the top end for valve and for take-up in case of wear. The lubrication of the single cylinder model is the same as that of the twin, and it seems that the mechanism is "fool-proof" to the last degree. As has been mentioned, the crank case is provided with an oil-well in which is a metal float attached to a lever. At the other end of this lever is a plunger which works in the end of the supply pipe, and as the float rises it automatically shuts off the supply of oil.

The new Greyhound has already had our attention on the occasion of its recent visit to Dixieland. The large fly wheel in the new 4½ h. should make for very easy starting and steady running. The engine has a bore and stroke of 3¼ x 3⅝ ins., with the cylinder and head cast in one piece, the casting being a wonderful improvement over that on the 1909 model.

The two Yale models, the distinguishing characteristic of both of which is their slight up-keep cost, are comfortable machines, with their low saddle position and long handle bars. The 45 degree twin made a fine impression. The Yale frame design is worked out on established and proven principles, the engine resting in a cradle, as is the case with the leading machines on the other side. The 1910 Yales bristle with selling features, and these, together with the record for reliability and speed made by the Yales during 1909, are sure to add immensely to the already great popularity of the Toledo product.

The M.-M. camp was as busy as ever, the new 4 h. model always having a crowd of admirers. The spring stand on this model is well worthy of note. The design is first class and it is one of those things which is wanted. As the machine is pushed forward, the stand swings up into place and is automatically latched. A neatly thought out idea is the emergency compartment in the tank, which fills itself automatically and holds a quart of gasoline, enough for twenty miles of running. That little cupped petcock and the feed-pipe thereto are still features and handy fitments which tend to make the Brockton Buzzer so popular. The spring forks are improved, a regular automobile type of clip being used to secure them to the forward end of the crown-plate, and clips are also provided on the springs.

NINE OF THE NEW TWIN ENGINES



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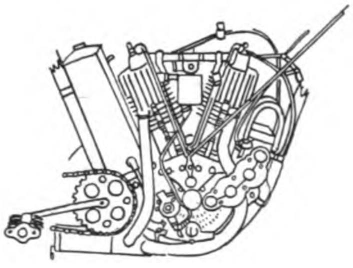

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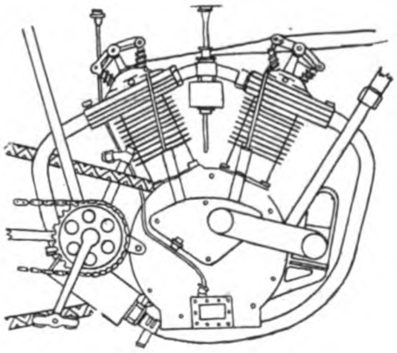

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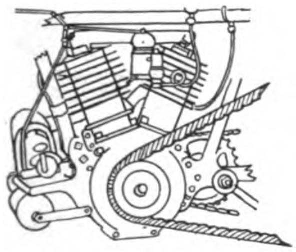

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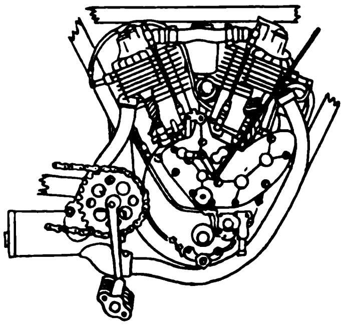

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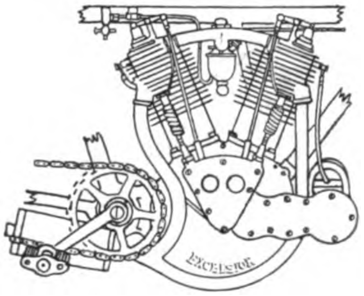

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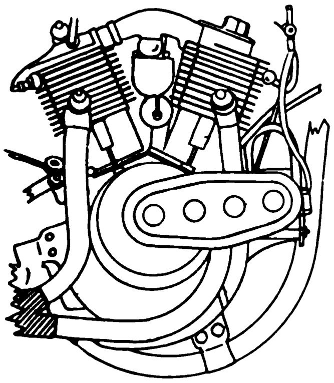

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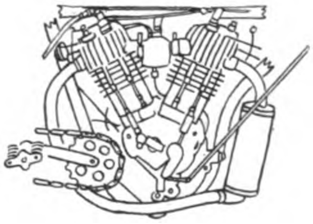

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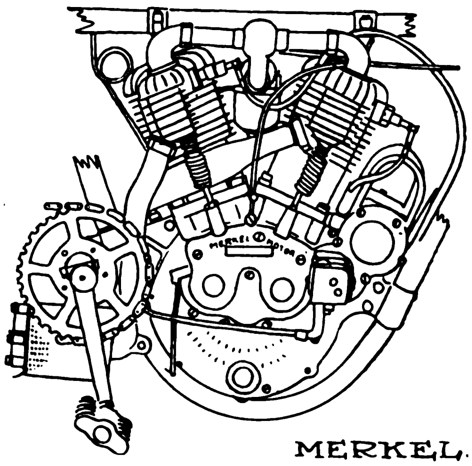
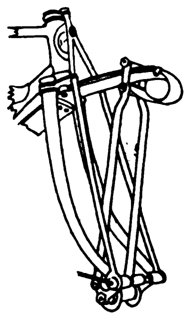

MERKEL MOTOR

MERKEL.

1910 FRAME AND FORK DESIGNS



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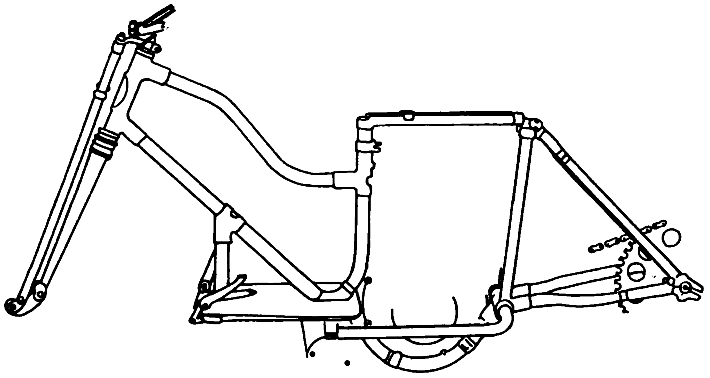

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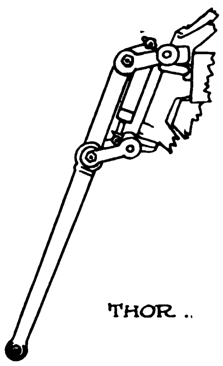

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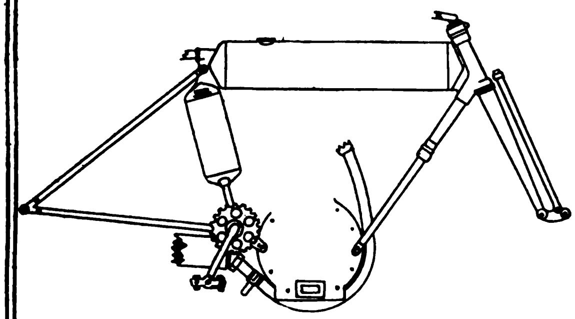

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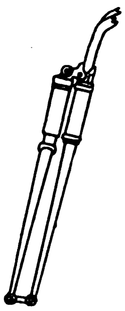

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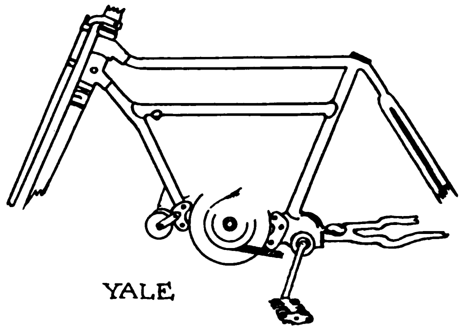

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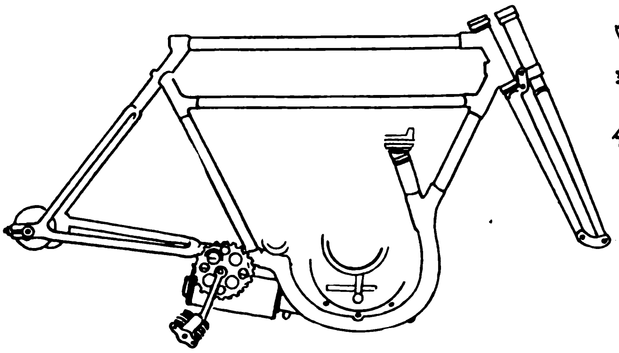

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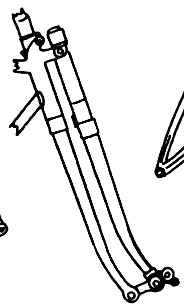

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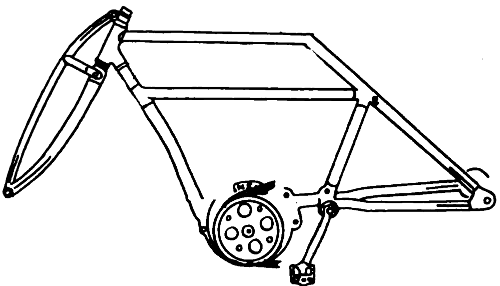

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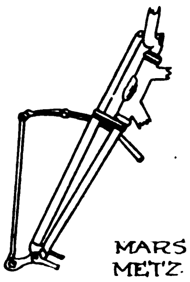

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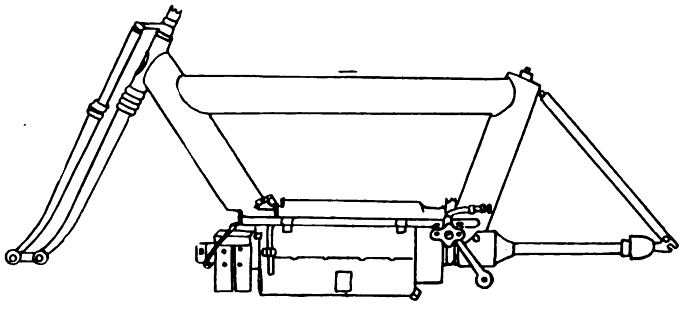

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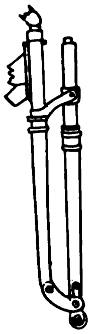


EMBLEM

On the new 4 h. we find 26 in. wheels, with optional drive of flat or V belt, as desired. The magneto is staged forward of the engine on a special platform, and the timing and magneto gear case are cast in one piece. The motor is set vertically by two-point suspension at the base, with the head suspended also from the lower of the top-frame bars. Roller bearings, mechanical inlet valves, domed pistons and automatic oiling are provided. The bearings are constructed with an inner bushing which turns integral with the shaft, and an outer shell that is pressed firmly into the base, between which the rollers run in an oil bath. The crankshaft roller bearings are ⅜ in. in diameter by 11/16 in. in length, which means long life. The oil-retaining device for these bearings has been well thought out. An oil ring is placed outside the bearing, this ring having a deep concave surface. An oil-duct leads the surplus of oil from the lowest point in this ring back to the crank case. A free engine clutch of the expanding band type is fitted as an extra to all M. M. models.

The Excelsior twin, built even more substantially than the single, although that would seem almost impossible, made a great hit. Its practically perfect transmission, drop forged frame connections, 45 degree engine, improved roller bearings and brake lubrication, free engine, easy running, lower saddle position and other features designed to insure the utmost reliability, make the new Excelsiors, both single and twin, machines of wonderful possibilities.

Again we come to that old stand-by, the Merkel. In addition to what has already been written of this model, mention must be made of the great improvement in the new design of the crank case on the gear-driven magneto mounts. This is an exceptionally clever piece of work, both neatness and accessibility being obtained. The cylinder and head are cast integral, with fly wheels and shafts forged in one piece, while the automatic inlet valves are retained. On the twin cylinder model, two cam shafts are provided to allow of the absolute setting of the valves.

It was from the Sunny South that I eulogized the Harley-Davidson. Need I add more in praise of the highly finished, clean cast crank case and other merits? However, the platinum iridium points on the timer pleased me greatly, as the source of many an old roadside curse was "near-platinum," as fitted in the days of yore. The sight feed lubrication is also good, and the Schebler carbureter has a kick to it like unto an old army mule. The individual tank system saves many a swear word, as leakage is well-nigh impossible.

The exhibit of the Reading Standard Company provided food for thought, but unfortunately the crowd round it did not give anybody much thinking room. However, by squeezing my ungainly figure sideways I managed to cull a few tablets of 1910 "dope." The cylinder and head are cast integral, with the inlet valve operated by a rocker arm directly over the exhaust valve. The saddle post now telescopes into the seat tube of the frame, giving a lower riding position. The magneto bracket is cast with the crank case. The new ball bearing motor, with the balls pressed into a steel cup screwed into the motor base, makes the ball race very accessible and easily removable. The wrist pin fastening has been further improved, so that it is impossible for the pin to work loose. The float feed carbureter has been redesigned to advantage. A very neat cut-out switch is provided on the circuit breaker case, giving a stationary fastening of the primary wire to the engine base. A fine example of sight feed rotary mechanical lubrication is embodied in the 1910 R. S. models, which is automatic in action. The combination tank has been enlarged and is ample for touring.

A new firm, the S. D. Manufacturing Company, of Brooklyn, offered something decidedly novel in the way of a single cylinder with shaft drive, fully described elsewhere. Adjoining, the Reliance Motorcycle Company showed a patent two-speed device of its own, which is also given due prominence on another page. Across the aisle, the Emblem folks exhibited singles and twins notable for their large crank cases and fly wheels, axle and piston conecting rod ball bearings, offset intake valve domes, large valves, force feed sight lubrication, copper tanks, a square muffler, and, at the purchaser's option, an Eclipse free engine device.

The 1910 New Era is better in many details. The two models have engines of 3½ h. and 5 h., respectively, both being single cylinders, with well cast radiating flanges of deep section. The wires for the grip control are encased in the frame. A new type of handle bar was shown, which gives a far more comfortable riding position and a better control of the machine itself. On the 1910 models I noticed the introduction of the Sager spring fork, a step in the right direction. The internal expanding brake, operated by a pedal on the footboard, is well designed and should be extremely powerful. Lubrication is by gravity sight feed and the muffler is enlarged and improved, the cut-out being operated by a stud on the footboard, and, as formerly, the change speed lever is also located there.

At the Indian stand I noticed that ample provision had been made for lubricating all the joints and bearings of the new spring fork. Again, the lamp bracket is now carried on the fork truss, so that the lamp moves with the wheel in steering, and thus the light is always thrown in the right direction. The merit of the new automatic lubricator is that it adjusts itself in proportion to the speed of the motor, so that efficiency must always be obtained. I noted the return to the trusty chain device, save in one model—it makes one wonder when finality will be ultimately reached in this matter. It almost reminds one that the season for the chain versus belt controversy is now on us—a good old hardy annual which always crops up! The new Indian stand, permanently attached to the rear forks, is standard now. This is strengthened by a cross piece at the brace and pivots forward of the rear axle, thus allowing the rear wheel to be detached without disturbing the machine. The free engine and two-speed gear looks very strong and fool-proof, and, I am told, has been subjected to exhaustive tests before being placed on the market. The teeth on the gear wheels are large and accurately cut and the whole design is indicative of careful construction.

Nearby, the Marvel held forth. This is another new one, not only as regards time, but in many other particulars. In fact, its novelties are so many that they cannot be generalized. A detailed description of them will be found in its proper place. The new Royal Pioneer, a decidedly promising machine, is also fully described further on in this issue.

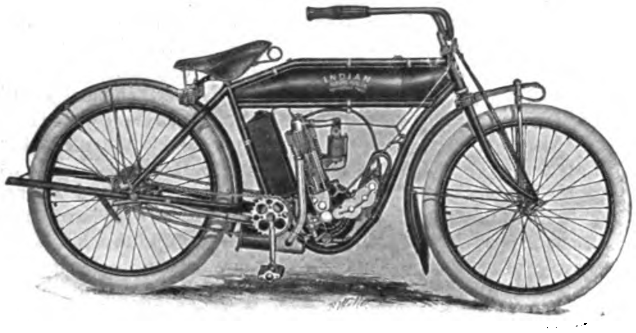
I cannot but pass a high compliment to the Teutonic camp (hoch!). My acquaintance with the N. S. U. dates from years ago, and every one of those years has seen steady improvement in this machine. First of all, the extensive selection offered to the public shows that the N. S. U. people obey the good rule of studying the buyer's needs. The finish on all machines is good, and the workmanship shown everywhere is all that can be desired. The system termed "undergearing" is one which discloses great forethought. Here we have a driving pulley with internal gearing of such a size that the dreaded bugaboo of belt slip is done away with. The side-car attachment is a jewel of the coach builder's art.

F. A. Baker's line in accessories made one wish to dive into one's jeans to re-equip the old rattler for another year or pile up the new machine with every assortment of motorcycle jewelry. If I had tarried near this booth much longer, I should have had to do without beer for a month, so great was the temptation.

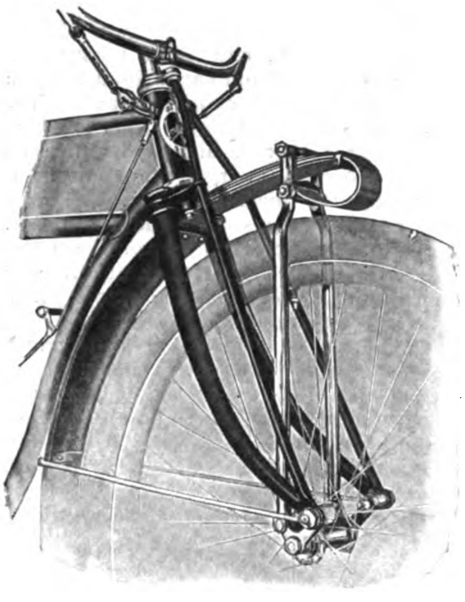
As a prospective buyer of a new mount for 1910, honestly I don't know where to look, as each model has its charm and the wiles of the salesman are great! I wandered to the loneliest spot I could find, the Rathskeller to wit, and departed a sorely—no, a pleasantly puzzled man.

THE MACHINES ON SHOW

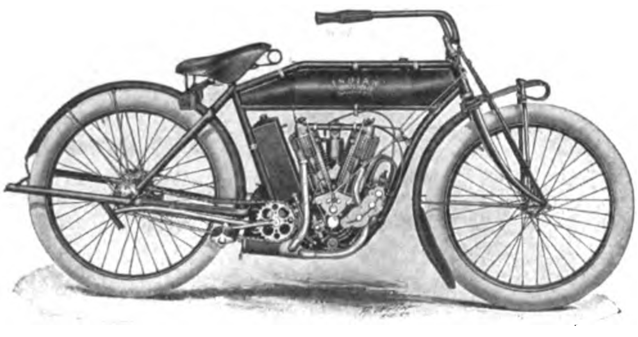
THE INDIAN—ITS NEW FORK AND TWO-SPEED



INDIAN 4 H. SINGLE MAGNETO.



INDIAN CRADLE SPRING FORK.



INDIAN 5 H. MAGNETO TWIN.

THE Indian 1910 line comprises six models, four singles and two twins, having from 19.30 to 60.92 cu. in. piston displacement, and rated at from two and three-fourths to seven horsepower. The valves are mechanically operated and the lubrication is automatic. Battery or magneto ignition may be had in the 19.30 and 30.46 machines, while the Bosch is standard equipment on the other three models. Control is by double grip; the forks are of entirely new design—cradle spring. The wheel base and the size of the wheels on all models are fifty-seven and twenty-eight inches respectively. Tires are of the G. & J. make. Brooks or Mesinger saddles are optional, the Corbin-Indian hand brake is fitted to all models, two of which may be had, if the purchaser so desires, with a two-speed gear at an extra cost of $50. All but one of the 1910 machines have chain transmission. Lightness is a general characteristic, the twins tipping the scales at only 155 and 160 respectively.

The new cradle fork is made without joints, of very heavy construction, and thoroughly reinforced; from the lower extremity of the fork to the upper part of the steering head, a pair of strong pipe braces extend, which are stayed out at the crown, and thus form a strong truss construction. The wheel hub is mounted on a bell crank lever, one extremity of which is connected to the fork ends, while the other arm of the lever is pivoted to a pair of rods, which extend upward and connect with the spring. A long laminated spring of highly tempered vanadium steel gives a smooth and resilient action, and at the same time it is very strong. A line drawn from the head of the machine through the axle meets the ground at the same point the wheel does.

The 1910 Hendee models are provided with a compact and simple force feed oiling device operated by the motor, the mechanism of which sends an accurately adjusted stream of oil directly into the interior of the motor. This insures a continuous and ample supply of fresh oil, which does not depend upon the judgment or memory of the rider. A hand pump is provided merely as a matter of convenience for providing an additional quantity of oil under special circumstances, or for refilling the crank case after the spent oil has been drawn off. The oiler is automatic in its action, for it feeds oil in correct proportion to the speed of the engine, increasing the quantity as the speed increases. It has no complicated mechanism and it comprises but one valve—a steel ball and spring.

A new attachment, standard on the 1910 Indian, and which will appeal to riders, is a new and substantial stand permanently attached to the rear forks. This stand is formed of strong, but light "D" section tubing, with forged steel brackets, and cross-connected at the bottom, making it sturdy and stiff, though very light. This stand is pivoted to the rear fork just in front of the rear axle, and when turned down to support the machine the bracket takes on bearing on a substantial stud brazed to the rear fork, giving a very solid support. Since the attachment on this stand is entirely separate from, and in front of the rear axle, the rear wheel can be removed from the frame without interfering with the stand.

A minor point of improvement is the construction of the well-known compensating sprocket, and this consists in effecting the drive connection between the two outer friction plates by substantial pins, thus taking this work from the connecting bolts, which have heretofore performed that function as well as adjusting the friction between the plates.

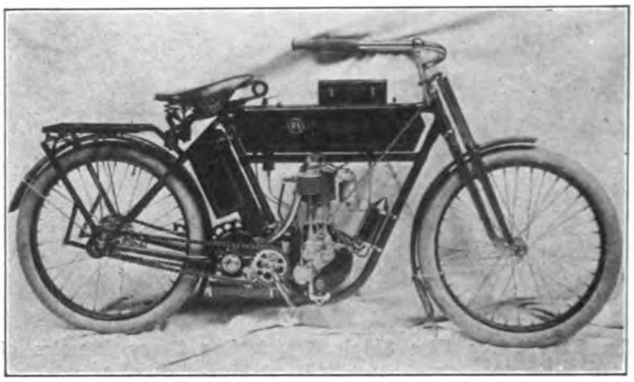
READING STANDARDS VASTLY IMPROVED

FOUR machines of the two-wheeler type and several commercial vehicles, including three and four horsepower wagonettes, were shown by the Reading Standard Company, of Reading, Pa. The former line comprises a 3 h. machine with chain drive and equipped with either batteries or magneto; a 6 h. magneto model equipped with either chain or belt drive; a 4 h. magneto or battery, chain or belt machine, and a 7 h. twin with chain drive and magneto. The most striking improvement in the 1910 R-S is no doubt its patented valveless mechanical oiler. Either light or heavy oil can be used, with perfect lubrication at all times without change of adjustments. This oiler will properly lubricate without adjustment at any rate of speed at which the machine may be going. All models have the new as well as the regular R-S oiler as part of their equipment. All are fitted with a glass window on the right sight of the crank case to enable the rider to keep track of the quantity of oil in the case. All models are equipped with the new R-S single float carbureter. This takes air from the bottom of the carbureter and auxiliary air from the top of the dome. This carbureter is very economical, requires less adjustment than the double float and gives a perfect mixture of gas at all speeds.

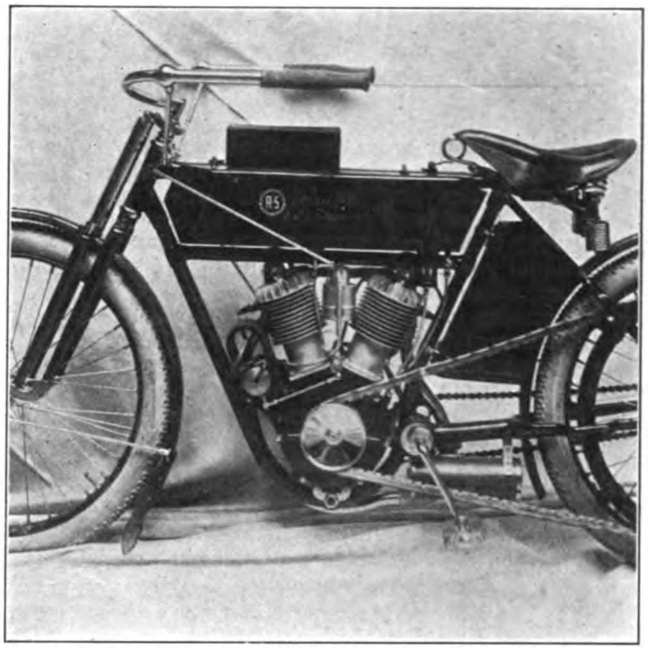
The 3 h. motor shows a change from double to single pocket head. This is an improvement in the air cooling system. Another change is the combining of the cylinder and explosion head in one piece. The 4 h. motor is entirely new, has a bore of 3¼ and stroke of 3⅝ inches and all the improvements noted regarding the 3 h. motor. This motor is also ball bearing. The 6 h. motor has the cylinder and explosion head combined in one piece and a single pocket valve chamber placed on the same side of the motor instead of opposite, as on former models. It also has an improved cam case mechanism. The valves of both motors on the 6 h. are operated by one set of cams fastened to a ⅝-inch cam shaft running on ball bearings, as is also the case in the 7 h. model. In addition the 4 h., 6 h., and 7 h. models have ball bearings on the driving shaft. The magneto gear case and bracket are cast integral with the crank case and the carbureter is placed centrally, allowing equal suction from both heads. This machine has magneto ignition only.

The 7 h. motor is similar in construction to the 6 h. engine. The bore and stroke are the same as in the 4 h. model. The front part of the frame has been shortened in order to obtain a five-inch wheel base. The loop has been lowered in order to secure more tank space as well as lower engine position. The upper fork connecting forging has been strengthened and the lower connecting links have been widened at the bearing lug to 9/16 in order to stand more wear, and have also been provided with oil holes. Lugs have been added to the front crown forging in order to obtain a more substantial front guard fastening. The seat-post has been increased to ⅞ inch in order to allow for a more substantial saddle clamp. The seat-post clincher has been changed, allowing the seat-post to telescope in the top bar instead of being upright. This produces a lower saddle position. The size of the tank has been increased. It holds two and one-half gallons of gasoline and a half gallon of oil, enough fuel for a two hundred mile tour. There have been a number of minor improvements, made all with a view of strengthening parts where weaknesses might develop.

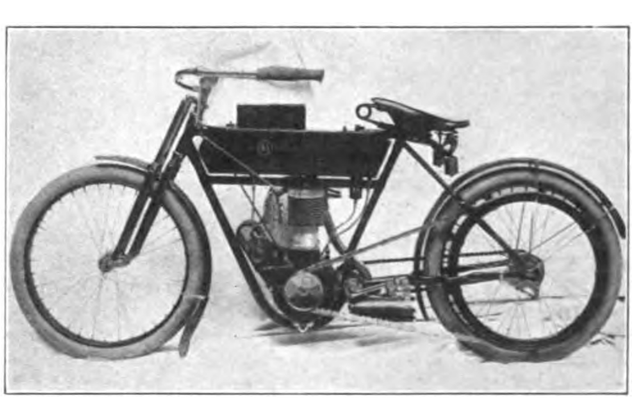
Control in all R-S models is by means of double grips; the wheel base is fifty-four inches and the wheel diameter twenty-six inches. Tires and brakes are optional with the purchaser and either Troxel or Mesinger saddles are supplied. The gear is 6 to 1 in the 3¼ h. model, 5 to 1 in the 4 h. and 6 h. machines, and 4 to 1 in the big twin. The finish is brown and the weights of the four models vary from 140 to 160 pounds.



READING STANDARD 3 H. SINGLE.

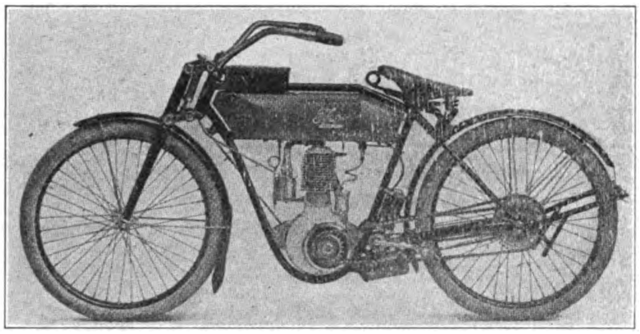


READING STANDARD 6 H. TWIN.

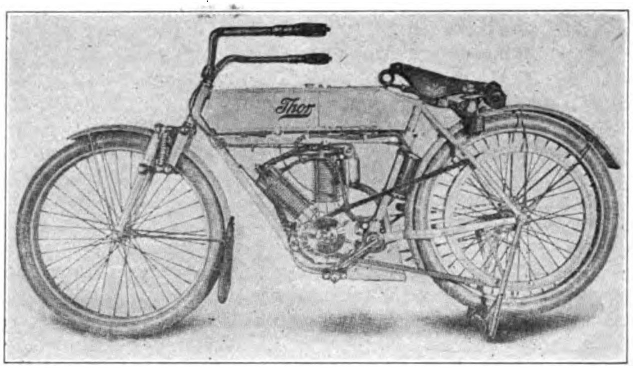


READING STANDARD 4 H. MAGNETO.

THOR LINE IS VERY ATTRACTIVE



The Thor IV, a Fine Single, Which Has Every Promise of Becoming Very Popular.



ONE OF THE THOR TWINS.

ONE of the real sensations of the Show was the Thor IV, produced together with a 3¼ h. single and a 6 h. twin, both powerful beauties, by the Aurora Automatic Machinery Company, of Chicago. Every part of the "four" has been especially designed for this machine, which is distinctive throughout and of such characteristics as to make the 4 h. rating more than a mere empty claim on the part of the manufacturers. The detailed specifications of this model prove beyond all question that the Thor people know exactly what they are talking about when they declare that the IV will deliver all of four horsepower, if not more than that. The bore of the machine is 3¼ inches and the stroke 3 3/5. The fly wheel weighs about twenty-two pounds, with the principal weight in the rim, which increases the momentum and steadiness without making it difficult to start. The connecting rod and its bearings have been increased, while the piston, made of cast iron, is extremely light, ribbed at the top, and with a beaded lower edge to insure strength. The Thor improved and patented screw for fastening the cross head pin has been retained. The cylinder and head, in one piece, are of specially treated casting with a gun metal finish. The bearings are of the Thor roller type, increased in size in proportion to greater power and shock.

Geared transmission does away with a counter shaft, reduces friction to a minimum and eliminates the use of a small chain. These gears run on ball bearings. A large disc forms the internal gear and a small one the external. The large gear disc has ball bearings on its outer edge and on its center or axis, upon which it rotates, while the smaller gear is attached to the flywheel shaft, which runs on roller bearings. The gears rotate in the same direction. To the large disc is attached the compensating sprocket. The internal gear bearings have been refined and the center stud bearing increased in diameter. The pinion and gear are slightly increased in width, and chrome nickel steel of the best possible grade is used. The intake and exhaust valve collars are not locked in place with a key passing through the slot. This is done away with, and in its place the Thor has a locking device that screws on the valve stem, acts like an expander on the collar and thereby holds it in place. This also compensates for wear. The manufacturers provide two oiling systems, one a mechanical automatic pump and the other a drip feed, which can be used to fill the motor base after the engine has been cleansed or before starting on a journey, to insure having the proper amount of oil. A full description of these devices, which are original and most effective, will be published in another issue. The carbureter connecting pipe and intake valve dome are in one piece, thus doing away with one connection.

The automatic switch, circuit breaker control and valve lifts have had much attention, and are neater, easier working and more durable than before. The control works on a long eccentric stud that overcomes all tendency to bind and wear sideways, and the automatic switch consists of a practically one piece phosphor bronze spring, directly connected to the wire and well insulated.

The frame construction has been given careful study both in design and material. It is a loop frame with very low saddle position, with the motor placed at the lowest point of gravity consistent with road conditions. The entire frame is made of imported tubing and the design is such that the saddle is practically the same distance from the ground with 28-inch wheels as the old designs were with 26-inch wheels, thus permitting the feet of a rider to touch the ground when not on the pedals.

The eccentric consists of two simple parts only, the eccentric sleeve with one eccentric flange attached permanently and a sliding eccentric flange locking with screws on two taper surfaces, counterbored in the hanger bracket. The crank sleeve in the eccentric runs on a combination of plain and ball thrust bearings. All these parts, with the exception of the crank sleeve, have considerably less diameter and are simpler than formerly.

The Thor pneumatic front fork is the only one of its kind used by American manufacturers. The stem and crown are made of one piece drop forging, thus doing away with brazed joints at a vital point. This fork is equipped with a pneumatic piston that takes all shocks from vibration, and the movable part of the front fork operates on eight sets of ball bearings, eliminating friction, wear and noise. The Thor handle is not made like a regular bicycle bar, as the concern has dispensed with the stem, using in its place a drop forge compression lug, compressed by three bolts and machined on its inner surface in such a way that it has several key ways.

A new coaster brake hub has been perfected with an increased friction surface of fifty per cent. over the present type. The brake arm slides in a loop or sleeve in the frame, allowing the hub to be adjusted or removed without removing any screws or clips. The increased friction surface, as well as the increased length of hub, give more stability to the wheel and its bearings.

Other Thor features, common to all models, are the automatic valves, Thor carbureter and brake, double grip control, G. & J. or M. & W. tires and Troxel saddles. The wheel base is 53 inches in the 3¼ h. single and the twin, and 54 inches in the four horsepower machine. Twenty-eight inch wheels are used in all models. The finish is French gray, except on the IV, which is enameled a beautiful royal blue.

EXCELSIOR FOLKS PRODUCE A DOUBLE

QUALITY of material and workmanship, spelling reliability under any and all conditions; a distinctive belt drive insuring smooth and easy transmission, whether on slow or high speed; an effective free engine device; drop forged frame connections; an ingenious brake lubrication system; a drop seat post giving very low saddle position; a force feed oiler with mechanically operated intake and exhaust valves; a belt which will not stretch; a new silencer and finally a wonderful twin with a 45 degree engine—these are some of the interesting features which characterized the exhibit of the Excelsior Supply Company, makers of the Excelsior Autocycle, of Chicago, whose booth at the show was always the center of an interested group of "prospects."

The 1910 Excelsior models comprise a single fitted with either battery or magneto ignition and 26 or 28-inch wheels, and the magneto twin, also with 26 or 28-inch wheels. The intake valve of the single is automatic and of the twin, which has a bore of 3 and a stroke of 3½ and develops six horsepower, mechanical. The twin is constructed on the same general lines as the single except, of course, that it is even more substantial in build, its frame and spring forks being especially reinforced to withstand practically any amount of wear and tear. The gasoline and oil capacity of the latter is no less than two gallons and two quarts, respectively, a factor which, combined with Excelsior excellence of design, strength of material and thoroughness of workmanship, make this an ideal touring machine. The wheel base of the single, the piston displacement of which has been increased to 30.50, is 55 inches, and that of the twin 56 inches.

The frame is heavily reinforced throughout with thorough and careful consideration of the requirements, both in the location and character of the reinforcements. The frame tube most subjected to overload is the lower frame member running from the crank case to the head. This is provided with a vertical reinforcing forged wall practically its entire length. This is pressed into the tube and then brazed into place before the frame is finally assembled. At other points either vertical center walls or fish-mouth tubular reinforcements are used, and in some places where the strain is greatest, a combination of both. The frame head is a single piece drop forging carefully designed as to form and weight.

The crank hanger is of the eccentric type specially designed to withstand the strains of motorcycle service. Its arrangement is such as to provide an extreme range of adjustment for the chain. The rear fork ends are of exclusive design and of sufficient length to allow for a variation of 5¾ inches in the length of the belt. By this combination of eccentric hanger and rear fork ends both chain and belt may be correctly adjusted independently of each other.

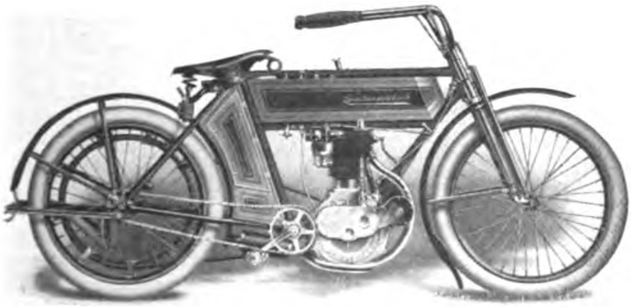
The rigidity and strength of the frame are also increased by the strong center tube to which the engine head is secured. This runs through the frame, parallel to the top tube, extending from the center or seat post tube to the lower frame member. It is heavily reinforced with a drop forged center piece carrying the engine connection. The rear forks and stays are of special design and instead of simply being bent in unsightly curves to clear the belt rim they are fitted with drop forged offsets that not only give a clean appearance but contribute a degree of strength that could not be attained by bending the tubes.

The oil supply is carried in a tank built within the gasoline tank, and is delivered therefrom through a sight feed to the right hand main crank shaft bearing. From there it is carried through the hollow crank shaft to the crank pin bearing. Having performed its work at that point it is thrown by centrifugal force to the lower part of the cylinder where a circular pocket in the crank case gathers the oil and delivers part to the cylinder wall, piston and wrist pin and the rest through a tubular duct to the left main bearing. The oil pocket at the base of the cylinder is of such form that the piston at the completion of its downward stroke enters the pocket, picks up the oil therein and on the upward stroke spreads it evenly over the cylinder wall. That part of the oil which passes from the pocket to the left main bearing passes through that bearing and the surplus is gathered in a circular pocket at the outer end of the bearing from which it passes through a check valve back to the crank case.

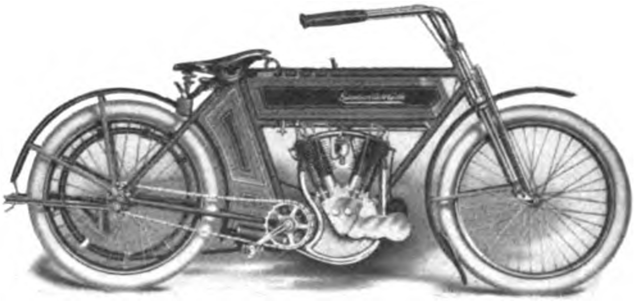
The crank case is made in two parts, of an aluminum alloy of great strength and durability. The two sections are machined to an absolutely oil tight joint and the rigidity of the case is assured by the coupling bolts that pass through from face to face. On the pulley side is a recessed oil pocket to catch any ascaping oil which is sucked back into the case through a check valve instead of being thrown out on the case or the rider. Pressure in the crank case is equalized by a "breathing tube."

Control of both spark and throttle is by means of rotatable grips on the handle bars. The connection between the movable grips and the throttle and spark mechanism is by means of steel rods and drop forged levers, there being no brass or iron castings used in any part of the controlling mechanism. With the Excelsior grip control, the speed may be governed and the motor stopped or started without removing the hands from the grips, one of which governs the spark, and the other the throttle.

The heavy front fork is strongly reinforced with velvet action shock-absorbers, while the handle bars are extra long. The carbureter is a Shebler and the saddle a special Troxel. The finish is the established Excelsior gray, handsomer than ever because of the carmine-panelled tanks. All the exposed metal except the aluminum crank case is highly nickel-plated. A Musselman armless coaster brake, with a special oil cup, a distinct novelty, is another attractive and useful feature of all types of the 1910 Excelsior.



EXCELSIOR SINGLE.



EXCELSIOR TWIN.

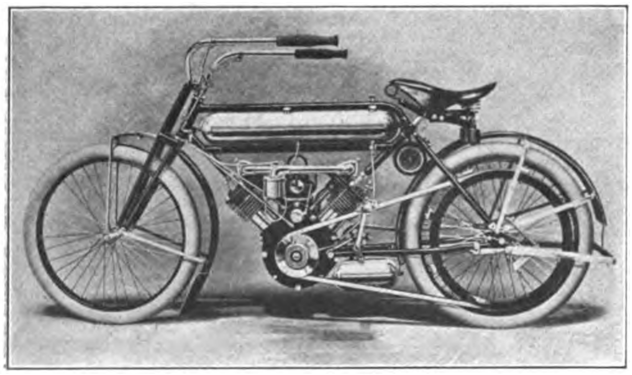
FOUR-HORSE MAGNETO THE M. M. LEADER

THE exhibit of the American Motor Company, of Brockton, Mass., was most interesting and instructive. Not only did this concern show samples of the three 1910 M. M. models, with side-cars, free engine clutches, etc., but a great deal of time and effort had been spent in preparing an exhibit of an educational nature. There were cut-away sections of assembled motors, carbureters, gear cases, etc. A complete motor, knocked down, was staged to show the smoothness of finish and the quality of the material. The large space occupied by the American Motor Company, right in the center of the motorcycle section, was particularly adapted to an exhibit of this kind.

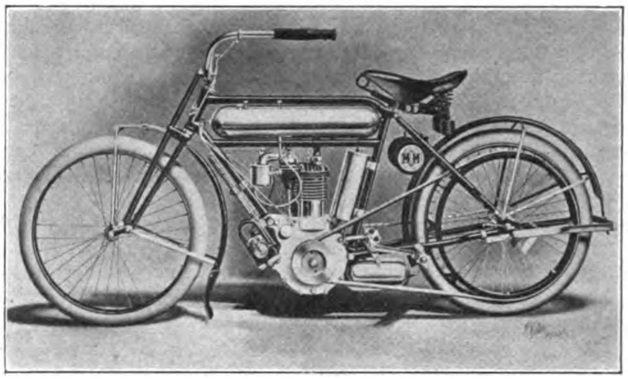
The new M. M. "4" proved a great attraction. This machine created quite a stir when its specifications were announced in this paper three months ago. It bristles with new things, features that appeal directly to riders. Among the improvements in this machine are an original automatic oiling system with mechanically operated pump; emergency compartment in fuel tank; larger tank capacity for both fuel and oil; gasoline strainer at fuel outlet; improved leaf spring design and method of fastening to fork heads; a new stand that raises and latches automatically (actuated by two coil springs). The motor is set upright in the frame; its valves are 1⅞ inches in diameter, mechanically operated; the capacity is just within the 30.50 cu. in. rating; the base is of polished aluminum; flywheels weigh thirty pounds, and are an inch larger in diameter than in last year's motor; roller bearings are used throughout; the magneto platform is cast integral with the base, and the magneto drive is by a train of three gears. There are many other minor improvements, such as flat mudguard rods, turnbuckle chain adjustment, longer handle-bars, longer pedalling cranks, etc. Aside from this machine the other most prominent single feature of the exhibit was the new M. M. free engine clutch. This can be fitted readily and at small cost to any M. M. model. It is a simple internal-expanding band clutch, original in design, substantially built, readily oiled and cared for, and impossible to burn out.

The M. M. inlet valve is operated by a push and rocker arm arrangement, the rod being actuated by a plunger which is lifted by a latch on the intermediate gear shaft. This latch is similar to the one used in the exhaust valve mechanism. Two minutes work with a bicycle wrench will convert the mechanical into an automatic valve. The inlet push rod is also made adjustable.

The mechanical oiling system consists of a drip feed which forces all the surplus back into the tank. In addition, there is a hand pump in the tank that can be used for emergencies. The tank is cylindrical in shape, of seamless brass tubing, one and one-half quarts capacity. It is secured to, and just ahead of, the rear down tube. The oil drips from this tank directly into the engine base. The drip tube is large enough to allow the heaviest oil to flow in a constant stream. The pump is a little rotary affair, enclosed in the gear case, and it pumps all the oil above a certain level in the base back into the tank. This level is fixed by means of a stand pipe.



M. M. MAGNETO TWIN.



M. M. 4 H. MAGNETO SINGLE.

The Bosch magneto on the new "4" is set forward of the motor, on a platform cast integral with the base, and is driven by a chain of three gear wheels. These gears, as well as the cam shaft gears, are inclosed in aluminum cases and packed in grease. They are easily accessible.

The roller bearings in the new motor are exceptionally large, and of somewhat unusual construction. They consist of an inner bushing that turns integral with the shaft, and an outer shell that is pressed firmly into the base, between which the rollers run in an oil bath. The entire bearing is turned and ground out of a high-carbon steel, and the bearing surfaces are of exceptionally liberal proportions.

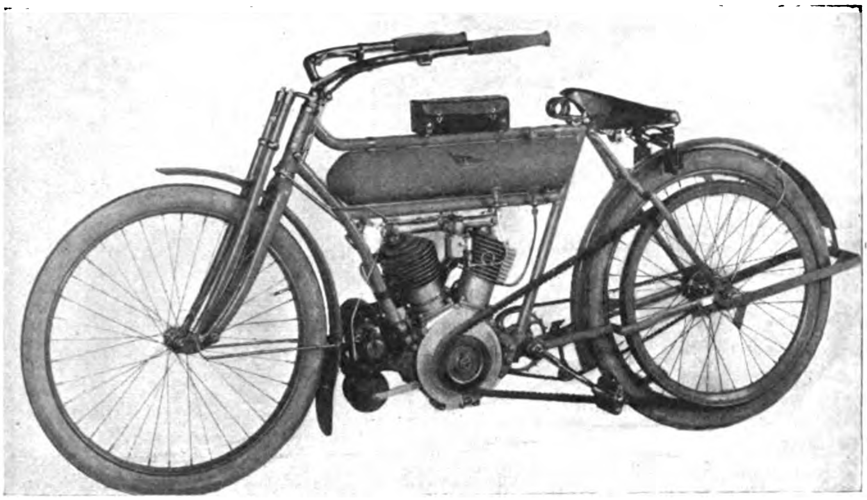
An oil ring, having a deeply concaved inner surface, is placed just outside the bearing proper. An oil duct leads the surplus oil from the lowest point in this ring back into the engine base.

As an extra on all three models the American Motor Company will furnish a free engine clutch at an additional cost of fifteen dollars. The clutch is contained in the engine pulley and is made for either flat or V belt drive. It consists simply of an expanding steel band that turns integral with the engine shaft, and a freely movable outer shell that provides the pulley surfaces. By means of a single vertical rod with a handle lever at its upper end, and a short lever at the bottom, an in-and-out motion is made to expand or contract this steel band so that the engine drives the rear wheel or runs "free" of the driving pulley.

With the clutch in its expanded position, the pulley and shaft turn as one unit. The expanding band is surfaced with fiber set with cork inserts, affording a perfect grip in combination with the inner steel shell of the pulley itself. Provision for adjustment has been made so that wear in the fiber facing and cork inserts can be readily taken up. A heavy steel band is carried around the pulley to protect it from breakage if the machine should fall. This band is carried from under one of the forward engine base bolts, across the pulley, and down to one of the lower bolts. At its center it provides a bearing for the lower end of the actuating rod.

With this clutch the rider simply kicks the motor over on the stand, pushes the machine forward so the rear wheel rests on the ground, gently slips the clutch in and moves off. He does not get off the saddle after mounting. The clutch starts the machine slowly and without a jerk.

THE STURDY AND RELIABLE YALES



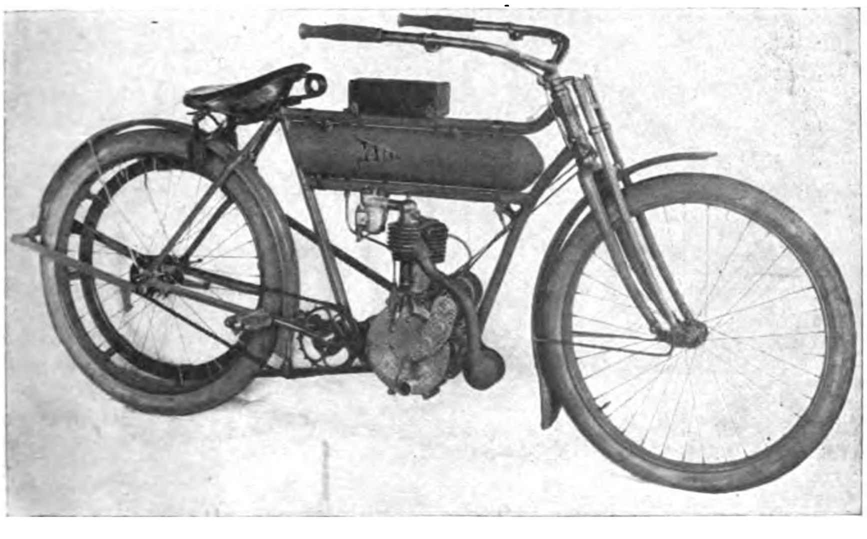
NEAT, compact, powerful, and thoroughly up to date from fork head to rear tire, the established Yale single and the very promising Yale twin, exhibited by the Consolidated Manufacturing Company, of Toledo, O., made a most favorable impression upon every visitor. Reliability and strength characterize the design, workmanship and material of the 1910 models, of which there are three, the single being furnished with either battery or magneto ignition. The makers of the Yale, proud of having won the 1909 endurance record honors, seem determined to retain their laurels indefinitely, for both the standard and the new features which they have embodied in their latest models prove excellent judgment and a desire to give the public something more than its money's worth. The 1910 Yales, originally shown at the Atlanta Show and at that time fully described in these columns, are noteworthy because of their low saddle position, low hung engine, endless flat belt with adjustment idler, heavy flywheels, strongly reinforced tubing and well made joints, hardened and carefully ground tool steel bearings, in fact, quite everything that insures simplicity and the right sort of wearing qualities.

In both the single and the twin the bore is 3¼ and the stroke 3 11/16 inches. The crank case is cast from aluminum, while the bearings, forged from tool steel, run in bronze. The valves are forged nickel steel, and the "I" beam forged connecting rod is at the same time light and durable. There are three piston rings with step joints turned eccentrically. The cylinder, piston and ring metal is cast from metal patterns. One gear, turned from a solid bar, operates, in the magneto machine, the exhaust valve or valves and the magneto. There is a glass oil sight in the right side of the crank case which also contains a pressure relief. The exhaust, vibrator and magneto gears are constructed of carefully hardened steel with wide faces.

The ignition in the battery machine is by jump spark from dry cells. The vibrator, simple and compact, is attached to the side of the gear case on the main bearing. The contact points are iridium platinum, which are easily cleaned. The single is fitted with a Herz magneto at an extra cost of $35. In the twin, Bosch magneto is regular equipment. The carbureter is of the float feed type and control is by double grip. The muffler is small and compact and guaranteed to give the required service without back pressure. In the battery model the box containing the three No. 6 dry cells is placed under the saddle, easily accessible and at the same time waterproof. The coil, which is attached to the seat post, has a switch plug in the head.

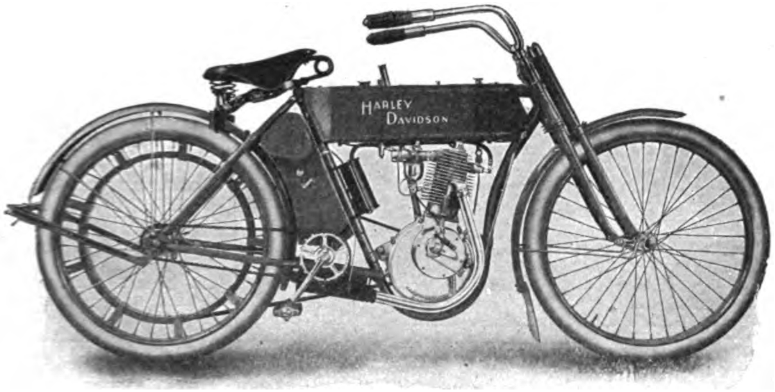
The frame, having a 5½ inch road clearance, is of special design and made of 1⅛ inch 16-gauge seamless tubing with an extra brace. The connections are made from drop forgings, every joint strongly reinforced. The design of the frame is such as to afford a low center of gravity and a very comfortable saddle position. The wheel base is 54½ inches and the 28-inch wheels, fitted with Morgan & Wright or G & J tires, have very heavy spokes, 36 in front and 40 in the rear. The cushion fork has large springs with an adjustable tension to suit the rider's requirements. The three-inch raised center guards are strongly braced. All models are fitted with Eclipse coaster and brake combined in the rear wheels and a knockout axle in the front. Either Troxel or Persons saddles are offered at the purchaser's option. No. 3 Standard pedals are used and a substantial leather box, with a complete set of tools, is part of the equipment.

Transmission is by means of 1¾-inch specially tanned waterproof, endless flat belt. Proper tension is obtained by an idler operated from the seat. As an option, a Shamrock Gloria V belt is fitted. The gas capacity is 1½ gallons and the oil, carried in a separate compartment in the gas tank, is forced into the crank case by a pump operated while the machine is in motion. The splash system of lubrication is employed. The gear of the single cylinder is 5¼ to 1 and of the twin 4½ to 1. The stand is attached to the rear fork ends and is carried suspended from the end of the mud guards.



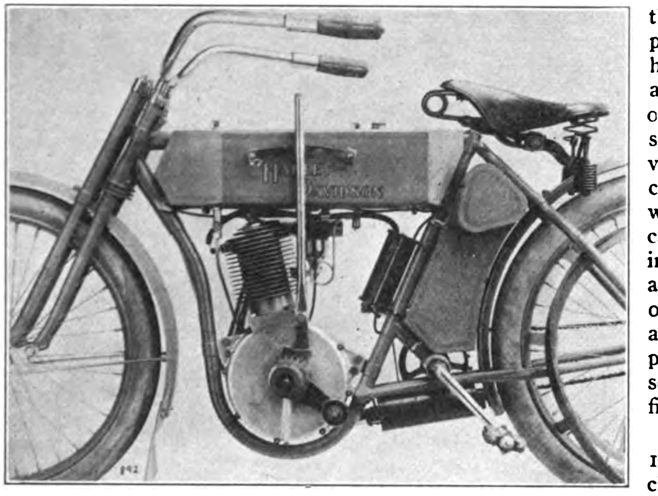
MANY CHANGES IN THE HARLEY-DAVIDSON

AT the cost of perpetrating an Irish bull, it may be said that no one "in the know" was surprised to find many surprising things in the 1910 Harley-Davidson, of which there are seven models, five singles and two twins. Perhaps the most important changes discoverable are in the motor. The new cylinder has larger valves than the 1909 machines and a fifty per cent. greater cooling surface, the radiating flanges having been increased in number and also made wider. The stems are of special steel, while the heads are of a very high grade of gray cast iron, and will stand the great heat they are subjected to without warping or pitting. The inlet valve is made from a high grade nickel steel drop forging and has an increased diameter. The exhaust pipe, one and one-quarter inches in diameter, is a great help toward making a flexible engine. The instant the throttle is opened the motor responds. There is no choking, back-firing or misfiring. Another detail worthy of mention is the nickel plated cylinder, exhaust pipes and bright connections. There have been a number of improvements made in the crank case so as to insure the greatest measure of cleanliness.



Harley-Davidson Battery Single.

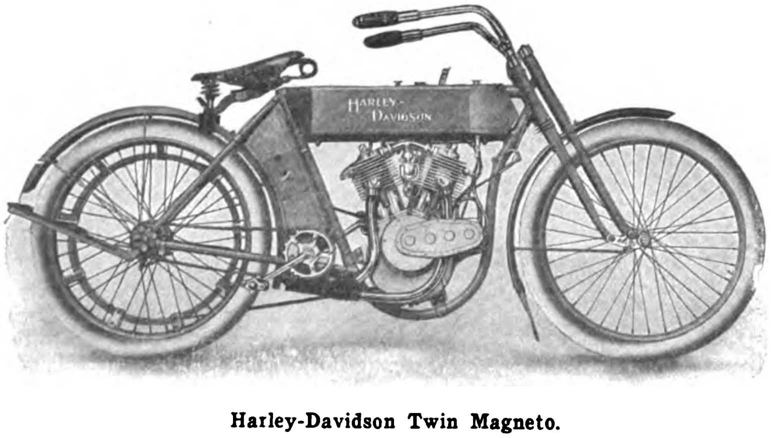
A Schebler carbureter, especially designed for the Harley-Davidson motor, is regular equipment on all the 1910 models. By means of a special carbureter intake the main supply of air is taken directly off the warm cylinder. This produces a much better mixture at slow speed and prevents condensation in the intake pipe. All of the magneto models are equipped with Bosch magneto, and the battery models with a Thordarson coil of especially high efficiency. The contact box will not wear loose under any circumstances. It is fastened to the gear case cover by an ingenious arrangement, which allows all possible wear to be taken up. This arrangement also prevents misfiring. The contact points on both the adjusting screw and the trembler blade are of the best grade of platinum iridium. All the handle bars are strongly reinforced and are of a heavier gauge of tubing that that formerly used by this concern.



The Harley-Davidson Patented Idler.

The crank handle has been placed a little forward of that used in the 1909 models, affording a much better riding position and making it easy to pedal the machine. There is a more substantial lock nut on the crank hanger. All the pedal cranks are carefully heat-treated, and it will take an enormous strain to put them out of business. The forks are strongly reinforced and of a very high grade of steel, especially adapted to this kind of work. The rocker plates are carefully hardened on the bearing surface only. These plates are drop forgings of special open hearth steel. Ball oilers are provided for the rocker plate bearings. The stand is somewhat heavier than that fitted heretofore.

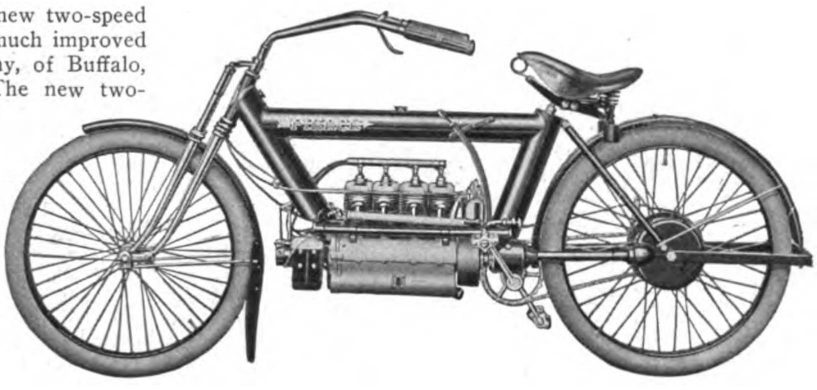
Transmission is by means of 1¾-inch endless flat belt exclusively. The Harley-Davidson folks have worked out a very ingenious idler entirely different from anything else. It gives a greater range of action than any other the company has used heretofore, and is absolutely correct in principle. It is very well protected. The tank is on the same general lines as 1909, but with one-piece stamping for the end, which makes the tank considerably stronger. The filler cap is raised in order to make filling the tank and the removal of the caps easier. Lubrication is mechanical, or, more specifically, vacuum automatic, with adjustable sight feed.



Harley-Davidson Twin Magneto.

AT a meeting of the Motorcycle Manufacturers' Association held on Monday, it was decided to have a representative at the convention which is to be held at San Antonio for the purpose of discussing transportation problems. The matter of freight rates will be given serious attention. The M. M. A. also took action with a view to weeding out of the trade the irresponsible agent. The task will be undertaken in a systematic manner and all the manufacturers will co-operate to make it a success.

PIERCE LINE INCLUDES A SINGLE NOW



The Pierce 1910 Four Cylinder Model.

OFFERING a single cylinder model and a new two-speed gear for its four which, by the way, is much improved over its predecessor, the Pierce Cycle Company, of Buffalo, had an interesting and instructive exhibit. The new two-speed is constructed on the sliding principle, so that when the hand lever is shoved forward it engages the low speed. As the control lever is pulled back into middle position, it has the effect of moving the two sliding gears into a neutral position, disengaging the smaller gear, which is engaged at the left hand end of the case. An examination of the clutch construction shows also that the same movement releases the clutch, as the cone which expands the dogs has moved forward. For the high-speed position the control lever is pulled all the way back, which moves the sliding gears still further forward until the larger of the two meshes with the gear on the shaft that drives the rear wheel. As the gear moves into complete mesh, the second cone moves forward sufficiently to expand the clutch dogs and throw the clutch into action, so that the full power of the motor is transmitted. Since the action of the change gear and the clutch are not separated but are combined in one controlling lever, the possibility of any mistake in operation that could injure the sliding gears is precluded. The ratio is 4⅛ to 1 on the high gear and 7⅛ to 1 on the low.

The cylinder dimensions of the new model have been increased from a bore of 2 3/16 ins. and a stroke of 2¼ ins. to a bore of 2 7/16 ins. and a stroke of 2⅜ ins. This is an increase of one-third in the cubical displacement. To comport with the increased dimensions the fly-wheels are 1½ inches wide.

The frame is of 3½-inch tubing, the top and rear upright tubes acting as a gasolene tank and having a capacity of seven quarts, sufficient for 100 to 150 miles. The lower or front tube holds five pints of oil, sufficient for 800 to 1,000 miles. The heavy rigid triple-crowned fork used in 1909 is continued, the front wheel being attached to the front shock-absorbing fork by steel links, which are ball bearing at both ends. The road jar is absorbed by a combined pneumatic cushion and steel spring mechanism. The handle bars are of the V type, and wide mudguards are continued.

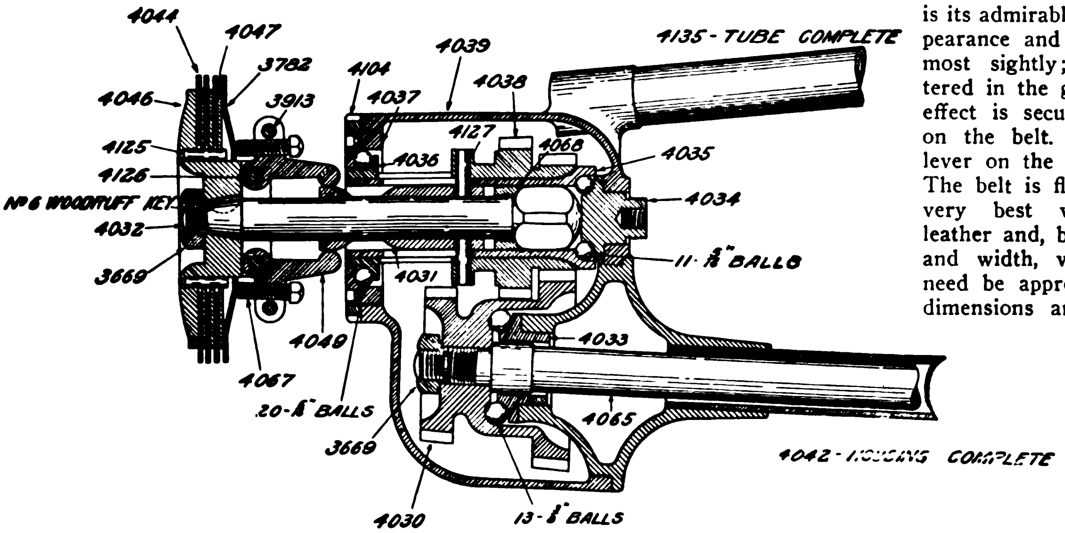
An improved supporting stand is used, being wider than previously. It is built integral with the frame so that the rear wheel may be removed while the stand remains in use. The rear mudguard is hinged to make rear wheel removal easy. Magneto high-tension ignition and an improved Breeze carbureter are supplied, the control residing in the grips. The left grip operates the throttle while the right advances or retards the spark, and also opens and closes the exhaust valves, Bowden wire being used. The wheel base is 60 inches, the machine having 28-inch wheels with 2½-inch tires.

The minor changes include a slight alteration in the oil base so as to eliminate any possibility of the pump not being fed. All bearings are fitted with removable bushes, made of Parson's white brass.

The New Single-Cylinder.

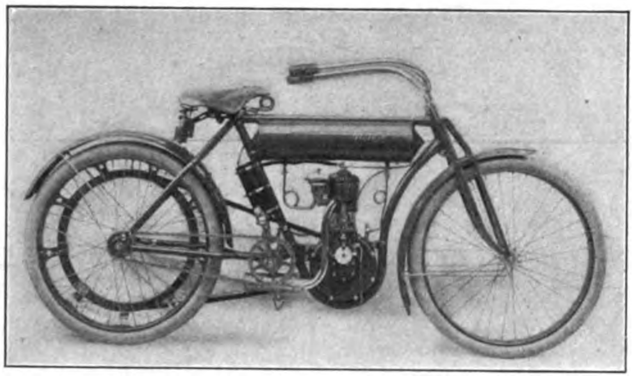
This machine will embody many of the scientific principles of construction comprised in the four-cylinder model; for instance, the large-size tubing, combining frame and tanks, will be utilized, and no change will be made in the front forks. Bowden wire control will be used on both machines. Belt transmission is substituted for shaft and gears. The motor is ball bearing, and owing to its excellence of construction, the judicious distribution of weights and the minute care exercised in the design throughout, this new model runs with a notable absence of vibration and almost as smoothly as the "four."

One of the features of the machine is its admirable simplicity, both in appearance and control. Its lines are most sightly; the control is centered in the grips. The free engine effect is secured by using an idler on the belt. This is shifted by a lever on the left side of the frame. The belt is flat and is made of the very best weather-proof stitched leather and, being of good thickness and width, very little belt trouble need be apprehended. The cylinder dimensions are large, being 3½-in. bore by 4-in. stroke, which gives a motor with five horsepower. With these dimensions, particularly the long stroke, the machine, while not built for racing, is said to be capable of 60 miles per hour speed.

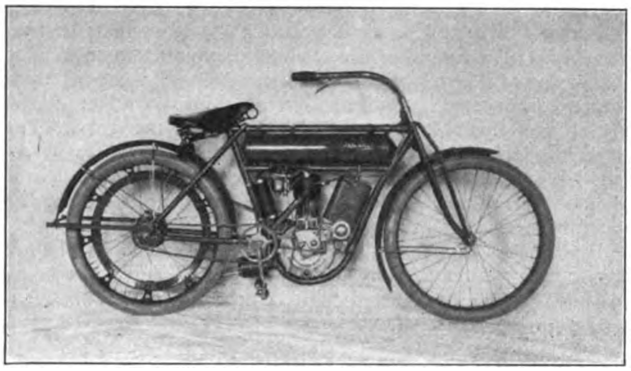


Horizontal View of Two-Speed Gear Transmission.

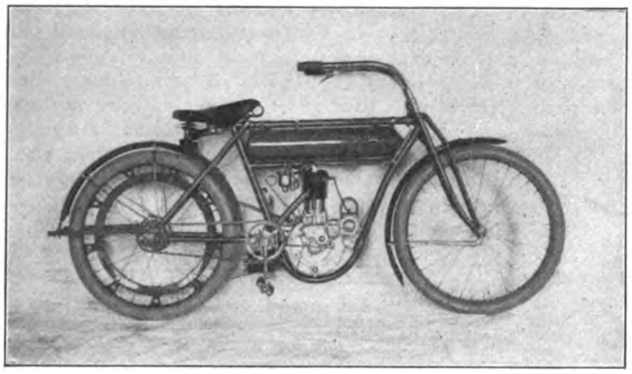
SEVEN 1910 MERKEL-LIGHT MODELS.



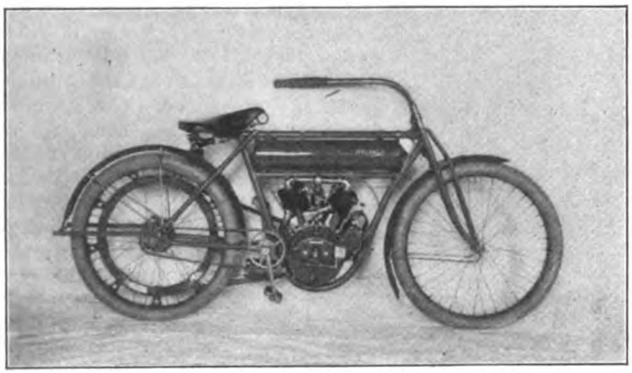
Merkel-Light 3 h. Battery, Single.



Merkel-Light 4 h. Battery, Single.



Merkel-Light 4 h. Single Magneto.



Merkel-Light 6 h. Twin Magneto.

SEVEN models are comprised in the Merkel-Light 1910 line, all of which bristle with excellent features. As is the case with many other manufacturers, the Merkel-Light Motor Company is making the 4 h. Model W its leader. This machine is characterized by some details all its own, but inasmuch as most of them are incorporated in the other models, it may be regarded as representative of the entire line.

Model W has a bore of 3.45 and a 3.25 stroke. A drop forging combines in one piece the flywheel and shafts. F. & S. annular ball bearings support both halves of the flywheel on each side of the motor. These bearings are also used in the idler gear driving the magneto, which is a special Bosch ball-bearing ignition device, mounted on a base which is cast integral with the crank case. The engine is mounted vertically in the loop frame and has a three-point suspension. The spring frame and fork have already been described in Motorcycle Illustrated. The control mechanism is completely encased in the handle bars. There are no joints, rods, knuckles or levers. The right grip operates the throttle and the left grip the spark advance. The exhaust valve lift to release the compression, entirely independent, is located in a position to be instantly accessible. The rear hub Merkel-Light brake is actuated by back pedaling and is entirely free from any drag by reason of the absence of the usual accompanying multitude of small springs and parts in the interior.

The seat post is horizontal, extending from the top of the frame, giving a wide range of adjustment backward and forward and the lowest possible saddle position. The tank is of the combination kind. The two ends and the partition separating the gasoline and oil compartments are fine brass castings. The partition has a wide face flange turned to the exact inside diameter of the brass tube and fits like a piston in a cylinder. When sweated and soldered in place it positively prevents any leakage of oil or gasoline from one partition into the other. The two end castings are turned inside to fit the exact outside diameter of the brass tube and are sweated over each end. Shut-off valves for both oil and gasoline supplies are provided in the tank, which permits the removal of pipes and connectings for cleansing or other purposes without draining the contents of the tank. The large fillers have openings that will accommodate the ordinary funnel usually found in any garage or repair shop. A "V" rubber or leather belt is used for transmission, the adjustable drive pulley allowing for a range of gearing from 4-1 to 5-1. The mud-guards are extra wide.

The Model W Battery machine is identical in every detail except, of course, as regards ignition. The transformation from the magneto model is accomplished by the removal of the magneto and substituting an aluminum casting which carries a shaft in the correlative position as the armature shaft of the magneto and upon which is attached the driving gear and commutator. An aluminum battery case, containing two standard dry No. 6 cells, is mounted in the same place as the magneto and is so arranged that it is very readily removed and attached when the batteries are to be renewed.

The Merkel control is accomplished by means of wires which for some time have been erroneously referred to as Bowden wires. Such is not the case, for in place of the flexible outside sheath and braided internal member of the Bowden wire system the Merkel construction is such that by the use of a diameter brass tube with inside diameter of proper dimensions so that the German 20-gauge piano wire passes through it freely, equally as much pressure can be exerted against the wire by pushing as by pulling in the opposite direction. In this manner the motion of the control wire is positive and equal in both directions.

THE LEADING FOUR N. S. U. MACHINES

N. S. U. partisans, and they are many, were furnished with a feast of interesting mechanical details, as revealed in the elaborate display made by the N. S. U. Motor Company, of 206 West 76th street, New York. We illustrate four of the 1910 models, the 2h. roadster, 3⅓h. F. A. M. model, 6h. Model de Luxe, and the 7h. racer. Briefly, the principal features of these four models are as follows:

Roadster (2 h.)—Bore 2 15-32; stroke, 3 1-16. Undergeared drive, making both pulleys practically the same size, and keeping the belt out of the mud and dust. This method does away with transmission troubles, and, according to the makers, solves the problem of transmission; it is clean, needs no attention, is resilient, and yet prevents power wastage. The magneto sets on the crank-case out of the way of mud and dust. Control is from the handlebar to the carbureter, with sliding pistons allowing the flow of air and gas to be minutely regulated. Brakes are very powerful, frame low, loop type, double head, separate gasoline and oil tanks of brass, quickly detachable rear wheel and mudguard, quick action stand, pneumatic shock-absorbing spring forks, patent belt adjuster, allowing a free engine if desired; large tool kit setting in the crank case, a. o. i. v. Bosch magneto, valves very large, weight only 108 lbs., speed 5 to 35 m. p. h.

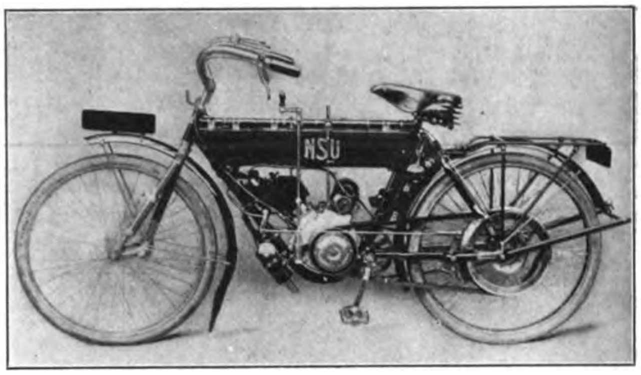
F. A. M. model (3½ h.)—A combination of the three successful 1909 models, refined and improved to meet the demands of American roads. The frame is very low, of N. S. U. Keystone construction, with large metal tool box setting in accessible position, yet well out of the way; quickly detachable rear wheel and mudguard; two brakes, rim and band; efficient spring forks; Eisemann magneto, gear driven; large motor m. o. v. (3 5/32 x 3 5/32); mudguards very wide and long sweeping; long, graceful handlebars; long muffler pipe with efficient muffler; quick action stand; all nuts double lock-nutted and pinned, wheels 26 inch, 40 and 48 spokes; S. G. rubber V belt.

Model de Luxe (6 h.)—Bore, 3; stroke, 3 17/32. A distinctly long stroke engine, with mechanical inlet valves; forward cylinder setting forward, aluminum crank case; Bosch magneto, large, silent muffler, keystone frame, very low; large tool kit, handlebar control, hot air jacketed carbureter; spring forks; two brakes, rim and band; foot rests, patent leather mudflap and double lock-nutted and pinned nuts; wheelbase, 57 inches; wide handlebars. Extras: two-speed gear, luggage carrier.

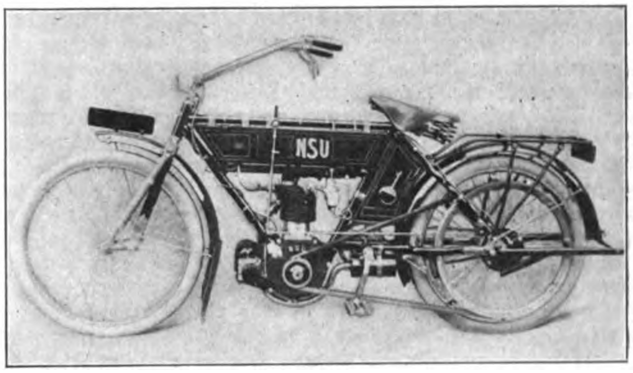
Racer (7 h.)—This is claimed to be the fastest belt machine in the world, with its cut down frame, motor double-faced bronze bushing bearings, m. o. v., Bosch magneto, 26-inch wheels and girder forks. This machine is a strictly stock model.

The 3 h. twin roadster, already famous in this country, was always the center of a group of interested spectators. Among its high points are the mechanical valve, position of the magneto, the fine and square cooling flanges, the petcocks for priming, the neat carbureter, the undergeared pulley with patent belt adjuster, the position of the forward cylinder to allow proper cooling, aluminum crank case with magneto platform directly cast thereto, bearings of wide bronze bushings, low frame, wheels 26 inch, thickly spoked and quickly detachable wheels, stand, foot rests, two brakes, separate tanks, handlebar control, etc.

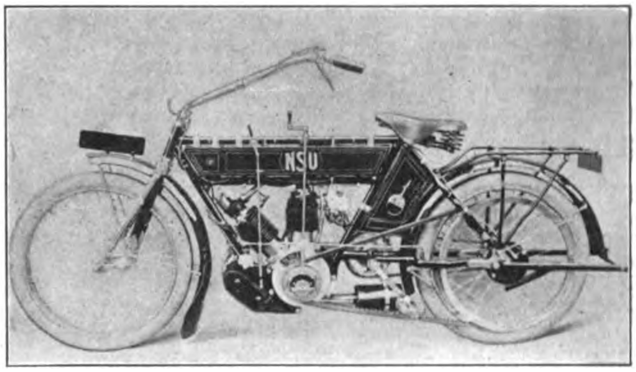
In addition to these models, the N. S. U. line includes the 6 h. F. A. M., a most satisfactory speed machine; the 4 h. F. A. M., with a very fast motor; the 4 h. undergeared Model de Luxe, single and twin, fore and side-cars and delivery vans. All models may be equipped, at a comparatively low extra cost, with the N. S. U. two-speed and free-engine device.



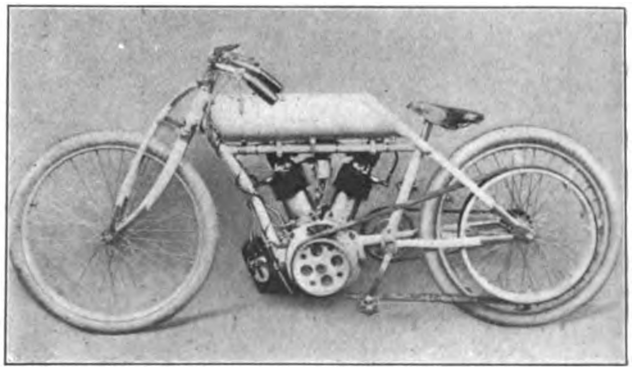
N. S. U. 2 h. Roadster.



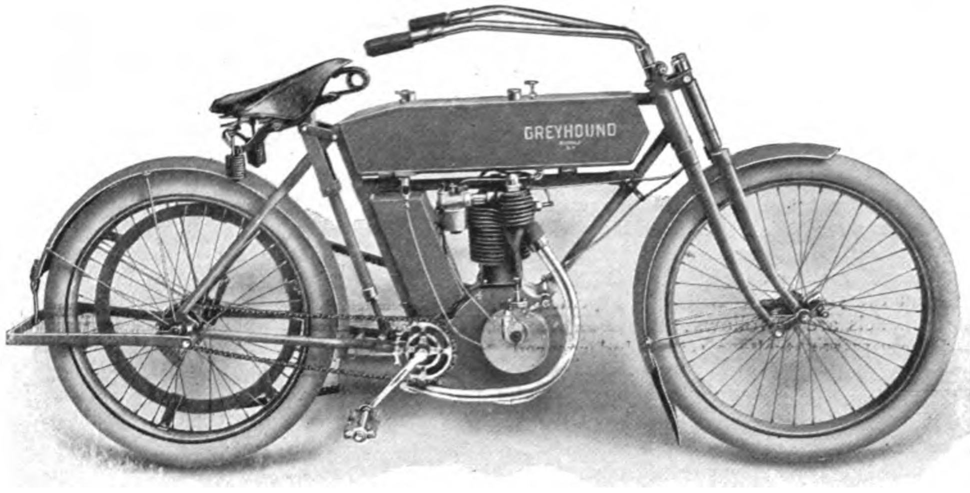
N. S. U. 3½ h. F. A. M. Model.



N. S. U. 6 h. Model De Luxe.



N. S. U. 7 h. Stock Racer.



The New Greyhound Really a Wonder

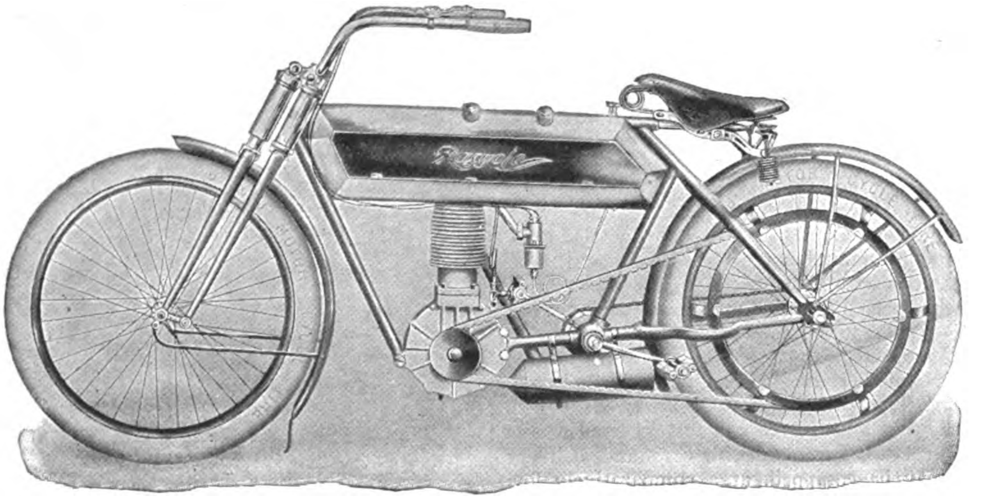
RETAINING its distinctive cushion forks and shock-absorber, both decidedly improved, and with its general design radically changed for the better, the 1910 Greyhound, the product of the Greyhound Motor Works, of Buffalo, N. Y., has a trim, clean-cut appearance, indicating a comfortable machine built for service and satisfaction. In fact, with the exception of fork and shock-absorber, there is hardly a point of resemblance between the 1909 and this year's model, to the design of which the makers have given much intelligent thought. Besides, the material and the workmanship in the new Greyhound are such as to show a conscientious determination on the part of the manufacturers to give excellent value for the buyer's money.

The Greyhound is a single cylinder machine having a bore of 3¼ inches and a stroke of 3⅝, thus making the compression area large enough to give the machine a four horsepower rating. The 1⅜-inch intake valve operates automatically and the 1½-inch exhaust valve has a cast iron head, screwed, shouldered and riveted. The long and gracefully curved exhaust pipe, 1¼ inches in diameter, leads to an improved and very effective silencer or muffler. The motor, set vertically in the frame, is strongly anchored to it at four points and has a generous cooling surface.

The front forks are the well known cushion spring type used on previous models. Much improved, they have extra heavy arched fork crowns, seamless fork sides, and heavy stems with solid reinforcements. These forks are on the truss principle, the truss being supported at the top of the fork stem instead of the bottom, thus throwing the stress over a larger plane and avoiding undue strain on the crown. At the lower fork ends are attached side plates or hinges of solid toughened steel. The two forward ends of these carry the Corbin hubs fitted to these machines. Midway the auxiliary fork is fitted, running upwards to a bridge piece, and from the point where these forks are bridged a large diameter hollow tube is fixed, carrying a long spring of great strength. Over this spring comes the plunger guide and recoil spring, which is attached to the top of the head. The front end of the fork floats on a spring when the machine is in motion.

The seat-post shock-absorber is of specially good construction, and is on the cantilever principle. At the ordinary saddle mast connection two strong side hinge plates are fitted. Attached to these is a substantial loop, which continues downward toward the crank hanger bracket in the shape of a long tube. Inside this a long spring is fixed, which pushes a plunger guide that is attached to a T piece just forward of the hanger bracket. The loop passes over the rear fork, which is bridged above the rear wheel.

Greyhound lubrication is of the sight feed gravity and centrifugal type. Ignition is by batteries and coil or, at an extra cost of $25, by magneto. Throttle and spark are controlled from the handle bars by the double grip system. The Breeze carbureter is used. The wheel base is fifty-seven inches and the diameter of the wheel twenty-eight inches.



THE RACYCLE, ONE OF THE NEWCOMERS.

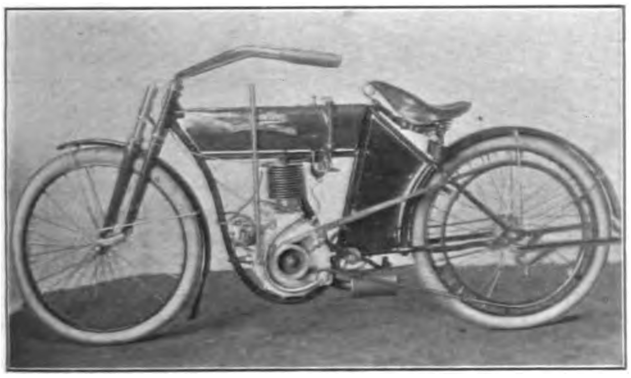
The Racycle Strong, Handsome and Distinctive

DISTINGUISHED by its handsome frame design, clear-cut lines, comfortable riding position, a large four horsepower single cylinder engine, the Musselman coaster brake, imported carbureter, a combination tank, forks of the barrel and plunger type, a positively silent muffler and numerous other features certain to enchance the rider's enjoyment of the sport, the Racycle, built by the Miami Cycle and Manufacturing Company, of Middletown, Ohio, proved a source of delight to both expert and novice. There is beauty, simplicity and strength in this machine, with a frame having only 20 brazed joints and constructed of 1¼-inch 16-gauge tubing. The engine, firmly suspended at three points, has a bore of 3¼, and a stroke of 3⅝ inches and presents a large cooling surface, all the more efficient because the flanges are finely cast. The motor is of the roller-bearing high-speed type and has a piston displacement of 30.50 cubic inches. Ignition is by means of batteries or magneto, the latter being supplied at an extra cost of $25. Carburation takes place in an English Brown & Barlow, throttle and air being controlled by small levers on the handle bar, insuring a steady, constant feed unaffected by the vibration of the engine. The engine is upright and situated well forward in the frame.

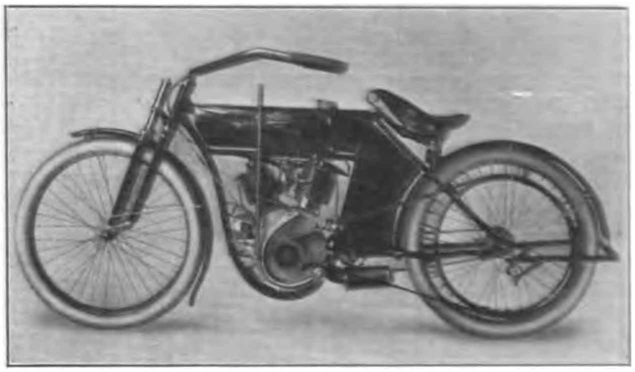
Transmission is by means of V or flat belt at the option of the purchaser. The buyer, however, may have chain drive with an eccentric crank hanger for adjustment. Lubrication is of the single feed system capable of absolutely accurate regulation. The oil capacity is two quarts and that of gasoline one and one-half gallons. Also contained in the single tank, which presents a fine appearance, are a reserve tank holding one-half gallon of gasoline and, in the battery model, the batteries and coil. The 4 x 11 muffler is large enough to have a capacity of 4½ times the motor displacement, yet so situated as to be quite inconspicuous and so designed as to give a quiet exhaust. Either Mesinger or Persons saddles are furnished, while the standard tire equipment is G. & J. double clinch 28 x 2½ or 26 x 2½ or 2¼. The handle bars are of the long extension type fitted with rough rider grips. A neat and substantial quick action stand, working independently of the rear wheel axle, is fitted. The finish is French gray with panel striping.

The Musselman brake, an important part of the equipment, has cooling flanges which add over 13½ square inches of cooling surface, making the total surface 42 square inches. A very large brake shoe, giving a total of 15 square inches, is applied on the inner surface of the shell under the cooling flange. The pitch is ⅝ inch. This gives one as good a leverage in applying the brake as a lifting jack. The axle is 9-16 inch in diameter, and there is no arm. The grease chamber is surrounded by the braking shoe. This holds sufficient grease to keep the hub automatically lubricated for a season. The sprocket set is fitted with two chain-like rings; these, with the straight and offset sprocket, give seven chain lines running from 2½ inches up, making it unnecessary to order special hubs for certain motorcycles. Three-eighth-inch steel balls are used throughout, also long, strong axle nuts built so as to accommodate any kind of stand. The principle of this brake is the same as the Musselman bicycle coaster brake, which allows the hub to run perfectly free at all times.

The 1910 Emblem An Entirely New Machine



The Emblem Magneto Single.



The Emblem 7 h. Magneto Twin.

HAVING added to its line a 4 h. single and a 7 h. twin, with Eclipse free engine as an extra, the Emblem Manufacturing Company, makers of the Emblem machine, of Angola, N. Y., is now prepared to satisfy the most exacting demands of the riding public. Mr. Shack and those identified with him in designing and producing the 1910 Emblem are confident that in their new models they have brought out three machines which will do them full justice and at the same time afford the kind of service which riders want. This company has fought shy of any radical departures from standard designs and methods of construction, and has concentrated its efforts upon the task of making this year's Emblems strong, thoroughly reliable, easily operated and neat and handsome in appearance, as shown by the accompanying cuts, and demonstrated by the handsomely nickeled twin which formed part of the exhibit made by this concern.

The Emblem intake valves are automatic. The lubrication system is of the sight force-feed type. The carbureter is the Heitger and the control is by concealed wire, twist-of-the wrist system. An efficient spring fork is part of the equipment, the wheel base is 56 inches and the wheels 28 inches in diameter. The tires are 2½-inch Empire or G. & J., while either the Troxel or Mesinger saddle will be fitted, as the purchaser desires. The transmission is by V or flat belt. The gasoline capacity is two gallans, the oil capacity two quarts and the finish carmine and gray. Ignition is by battery or Herz magneto. The weight of the 4 h. single is 175 pounds, of the 5 h. single 180 pounds and of the 7 h. twin 200 pounds.

The manufacturers are using an 11-inch crank case, a large cylinder with air-cooled offset exhaust ports. The Emblem seatpost is an extension of the upper main frame tube.

The new Emblem is a symposium of strength, power and speed. Its crank case is of liberal dimensions, enclosing large fly wheels. The valves are of generous proportions, and the exhaust pipe, leading to a square muffler, is long. The design is such that a change of ignition systems from battery to magneto, or vice versa, is very easily made. The tanks are solidly constructed of copper and contain two gallons of gas and two quarts of oil, sufficient to allow the rider to make long tours.

Complete Specifications of 1910 Models,

NAME AND MODEL OF MACHINE.	NAME AND ADDRESS OF MAKER.	NUMBER OF CYLINDERS.	BORE.	STROKE.	H. P.	INLET VALVES.	LUBRICATION.	CARBURETER.	IGNITION.	CONTROL.
Bradley	Bradley Motor Co., Philadelphia.	1	3¼	3⅝	3½	Mechanical	Sight feed.	Bradley	Bosch mag.	Double grip
Crouch, Model C	Crouch Motor Co.,	1	3½	3½	4	Automatic	Splash	Breeze	Magneto	Double grip
Crouch, Model D	Stoneham, Mass.	1	3 1-16	3	3½	Automatic	Splash	Breeze	Battery	Double grip
Curtiss Twin	Herring-Curtiss Co.,	2	3¼	3⅝	8	Mechanical	Mechanical	Curtiss	Batt. or mag.	Double grip
Curtiss Single	Hammondsport, N. Y.	1	3¼	3⅝	4	in-the-head	Mechanical	Curtiss	Batt. or mag.	Double grip
C. V. S., Model C	C. V. Stahl Motor Wks.,	1	3¼	3⅝	4	Option	Pump	Heitger	Battery	Flexible
C. V. S., Model E	Philadelphia.	2	3¼	3½	7	Automatic	Pump	or C. V. S.	Magneto	Shaft
Eagle	Eagle Motor Works, Minneapolis.	1	3¼	3½	4	Mechanical	Pump	Shebler	Battery	Double grip
Emblem Model 104	Emblem Manufactur-	1	3 3-10	3½	4	Automatic	Sight	Heitger	Magneto or	Grip
Emblem Model 105	ing Company,	1	3½	4	5	Automatic	force	Heitger	battery on	Grip
Emblem Model 106	Angola, N. Y.	2	3 3-10	3½	7	Automatic	feed.	Heitger	all models.	Grip
Excelsior	Excelsior Supply Co.,	1	3¼	3½	4	Automatic	Mechanical	Shebler	Battery	Double grip
Excelsior	Chicago.	2	3	3½	6	Mechanical	Mechanical	Shebler	Magneto	Double grip
Greyhound Battery Magneto	Greyhound Motor Wks., Buffalo, N. Y.	1	3¼	3⅝	4	Automatic	Sight feed	Breeze	Battery Magneto	Double grip
Harley-Davidson 6		1	3 5-16	3½	4	Automatic;		Shebler	Battery	Double
Harley-Davidson 6A	Harley-	1	3 5-16	3½	4	very large;	Vacuum	Shebler	Bosch mag.	grip; all
Harley-Davidson 6B	Davidson	1	3 5-16	3½	4	on same side	automatic;	Shebler	Battery	parts within
Harley-Davidson 6C	Motor	1	3 5-16	3½	4	of cylinder;	adjustable	Shebler	Bosch mag.	handlebars
Harley-Davidson 6D	Company,	2	3⅛	3½	7	inlet, flat	sight feed.	Shebler	Bosch mag.	to do away
Harley-Davidson 6E	Milwaukee,	1	3 5-16	3½	4	seated over		Shebler	Bosch mag.	with
Harley-Davidson 6F	Wis.	2	3⅛	3½	7	exhaust.		Shebler	Bosch mag.	lost motion.
Hilaman	A. L. Hilaman Co.,	1	3 5-16	3½	4	Automatic	Gravity and	Hilaman	Battery or	Double grip
Hilaman	Moorestown, N. J.	2	3¼	3½	7	Automatic	force pump.	or Shebler	Bosch mag.	ball joints.
Indian, 19.30		1	2¾	3¼	2¾	Mechanical			2 batteries	Double grip
Indian, 19.30	Hendee	1	2¾	3¼	2¾	Mechanical	Automatic	Hedstrom	Bosch mag.	Double grip
Indian, 30.46	Manufacturing	1	3¼	3 43-64	4	Mechanical	by	automatic	Batt. or mag.	Double grip
Indian, 30.46	Company,	1	3¼	3 43-64	4	Mechanical	mechanical-	compen-	Bosch mag.	Double grip
Indian, 38.61	Springfield,	2	2¾	3¼	5	Mechanical	ly operated	sating.	Bosch mag.	Double grip
Indian 60.92	Mass.	2	3¼	3 43-64	7	Mechanical	pump.		Bosch mag.	Double grip
Kiefler	Kiefler Motor Wks., Buffalo, N. Y.	1	3¾	4	5	Automatic	Automatic sight feed.	Special	Battery 2 cells	Friction levers and gr. switch
Manson	F. M. S. Cycle Co., Chicago.	1	2¾	3¼	3¼	Automatic	Force pump	Automatic float feed.	Battery	Double grip
Marvel	Marvel Motorcycle Co., Hammondsport, N. Y.	1	3¼	3 11-16	4	Mechanical	Auto. float	Marvel-Curtiss	Magneto	Double grip
M. M. Mag. Spec.	American	1	3¼	3 43-64	4	Mechanical	Mechanical	M. M.	Bosch mag.	Double grip
M. M. Bat. Spec.	Motor Co.,	1	3¼	3 43-64	3½	Automatic	Force feed	M. M.	3 dry cells	Double grip
M. M. Mag. Tw.	Brockton.	2	3¼	3 43-64	7	Mechanical	Mechanical	M. M.	Bosch mag.	Double grip

Both Domestic and Imported Machines

FORKS.	WHEEL BASE IN INCHES.	SIZE OF WHEELS.	TIRES.	SADDLE.	BRAKE.	GEAR.	TRANSMISSION.	GASOLINE CAP. GALS.	OIL CAP. QUARTS.	FINISH.	WEIGHT.	PRICE.
pring	55	26	Option	Persons	Option	Direct drive.	Flat or V belt.	1¾	3	Brown	160	$250
pring	53	28	2¼"	Mesinger	New Departure.	Direct drive.	Belt	2	1	Black	145	$200
pring	53	28	2¼"	Mesinger			Belt	2	1	Black	150	$225
pring	57	28	Kokomo	Persons	Eclipse	2-speed and free engine optional	V Belt	2	2	Sil. gray	150	$275
pring	57	28	Kokomo	Persons	Eclipse		V Belt	2	2	Sil. gray	125	$200
pring	56	26	Diamond or P. U.	Persons or Mesinger.	Eclipse	2-speed and free engine, extra.	Belt or chain.	1¾	1½	Gray or red	150	$200
pring	56	26			Eclipse			2	1½		175	$300
Spring and truss	56	28	2½"	Troxel	Corbin	Direct drive.	Rubber V belt.	1¾	1½	French gray	150	$210
pring	56	28	2½ inch Empire or G. & J.	Troxel or Mesinger	Eclipse	Two speed if wanted by purchaser	V and flat belt	2	2	Carmine and gray.	175	$200
pring	56	28			Eclipse		V and flat belt	2	2		180	$225
pring	56	28			Eclipse		V and flat belt	2	2		200	$250
atent spring	54	28	G. & J., M. & W. or Kokomo.	Troxel or Mesinger	Musselman or Thor.	Free engine by idler	Flat belt	1¾	1½	Gray and red	175	$225
atent spring	56	28					Flat belt	2	2	Gray and red	190	$325
pec. shock absorbing.	57	28	Kokomo or option.	Mesinger	Eclipse	Direct, 5.1	Flat or V belt	2½	2	Pearl gray	200	$225
											200	$250
Trussed cushion forks.	55	28	Morgan & Wright, G. & J. or Kokomo	Troxel, Mesinger or Persons.	Thor	New idler to take place of clutch	Free engine by use of 1¾ flat belt with new idler.	2	3	Gray and carmine	...	$210
	55	28			Thor			2	3		...	$250
	55	26			Thor			2	3		...	$210
	55	26			Thor			2	3		...	$250
	57	28			Band			2	4		...	$300
	55	26			Band			2	3		...	$275
	57	28			Band			2	4		...	$350
Cushion, bridged.	54	26	2¼"	Optional	Corbin or New Depart.	Variable pulley	V belt	1¾	1½	Red and black	160	$200
	56	28	2¼"	Optional			V belt	1¾	1½		175	$250
adle spring	53	28	G. & J.	Brooks or Mesinger.	Corbin-Indian Band	Two-speed on third and sixth models if wanted—$50 extra	Chain	2	2	Bl[illegible] red or green; nickel on copper	140	$200
adle spring	53	28	G. & J.				Chain	2	2		140	$225
adle spring	53	28	G. & J.				Chain	2	2		150	$225
adle spring	53	28	G. & J.				Belt	2	2		150	$250
adle spring	53	28	G. & J.				Chain	2	2		155	$275
adle spring	53	28	G. & J.				Chain	2	2		160	$325
Rigid ith truss.	53	28	2½" x 2¾"	Mesinger Cavalry	External band.	Direct two-speed.	Belt	1½	1½	Gray and red	180	$225
											180	$260
gid	52	28	G. & J. or Goodrich.	Persons	Thor	Direct drive.	Chain	1½	1½	Optional	145	$225
ring	56	28	Kokomo	Mesinger	Eclipse	Two-speed optional	Leather V belt	2	2	Gray	135	$225
ssed	54	26	2¼"	Mesinger	Coaster	Dir. drive or fr. engine, with clutch	V or flat belt	1½	1½	Red with nickel trim.	165	$225
ssed	54	26	2¼"	Mesinger	Coaster			1¼	1		165	$200
ssed	57	26	2½"	Mesinger	Coaster			1¾	1½		180	$300

NAME AND MODEL OF MACHINE.	NAME AND ADDRESS OF MAKER.	NUMBER OF CYLINDERS.	BORE.	STROKE.	H. P.	INLET VALVES.	LUBRICATION.	CARBURETER.	IGNITION.	CONTROL
Merkel-Light, A		1	2⅝	3	2½		Sight	Thor	3 dry cells	Double grip
Merkel-Light B	Merkel-Light	1	2¾	3¼	3½	Automatic	gravity	Thor	3 dry cells	Double grip
Merkel-Lt. V, 3½ H.	Motor	1	3¼	3¼	3	inlet, and	feed.		3 dry cells	Double
Merkel-Lt., V, 6H.	Company,	2	3¼	3¼	6	mechanical	Automatic	Merkel	Bosch	grip,
Merkel-Lt., V, 7H.	Pottstown,	2	3.45	3.25	7	exhaust.	mechanical	automatic	ball-bearing	leverless
Merkel-Lt., W, 4H.	Pa.	1	3.45	3.25	4		force	compen-	magneto	and
Merkel-Lt., W, 4H.		1	3.45	3.25	4		feed.	sating.	2 dry cells.	jointless.
Minneapolis	Minn. M. Co., Minneapolis.	1	3.25	3.65	4½	Automatic	Mech. and force pump.	Thor	Battery Magneto	Double grip Double grip
New Era	New Era Autocycle	1	3⅛	3½	3½	Automatic	Gravity	Shebler	2 dry cells	Double g
New Era	Co., Dayton, O.	1	3½	3½	5	Automatic	sight feed.	Shebler	2 dry cells	Double g
N. S. U. 2H Roadster		1	2 15-32	3 1-16	2		Force feed		Bosch	Handle bar
N. S. U. F. A. M. 3½H.	N. S. U.	1	3 5-32	3 5-32	3½		Force feed		Bosch	Handle ba
N. S. U. F. A. M. 4H.	Motor	1	3 11-32	3 29-64	4		Force feed		Bosch	Handle bar
N. S. U. 4H. De Luxe	Company,	1	3 7-32	4⅛	4	Automatic	Force feed	Hot air	Bosch	Handle b
N. S. U. 3H. Roadster	206 W. 76th	2	2 1-16	2 15-16	3	Mechanical	Force feed	jacketed	Bosch	Handle ba
N. S. U 4H. De Luxe	St., New York,	2	2½	3 11-32	4	overhead	Force feed	float	Bosch	Handle bar
N. S. U. 6H. De Luxe	City.	2	3	3 11-32	6	type.	Force feed	type.	Bosch	Handle b
N. S. U. 6H. F. A. M.		2	3	3 11-32	6		Force feed		Bosch	Handle b
N. S. U. Stock Racer		2	3 1-5	4	7		Automatic		Bosch	Handle b
N. S. U. Deliv. Van		2	3	3 17-32	6		Force feed		Bosch	Handle b
Peugeot	C. F. Fulmer,	4	3	3¼	12	Mechanical		Longuemere	Bosch	Bowden w
Peugeot	415 Sycamore	2	3¼	3¾	7	Automatic	Force pump,	Longuemere	Bosch	Bowden w
Peugeot	street,	2	3	3¼	5	Automatic	const'nt level	Longuemere	Bosch	Bowden w
Peugeot	Plainfield, N. J.	1	3¼	3¾	3½	Automatic		Longuemere	Bosch	Bowden w
Pierce, Four Cyl.	Pierce Cycle Co.,	4	2 7-16	2⅜	7	Mechanical	Gear pump	Breeze	Magneto	Double g
Pierce, Single	Buffalo, N. Y.	1	3½	4	5	Mechanical	Hand pump	Breeze	Magneto	Double g
Racycle Battery Magneto	Miami Cycle & Mfg. Co., Middletown, O.	1	3¼	3⅝	4	Automatic	Sight feed	B. & B.	Battery Magneto	Double gr
Royal Pioneer	Royal Motor Works, Worcester, Mass.	1	3½	3.17	4	Mechanical	Splash and force feed.	Adaptation of B. & B.	Bosch	Double gr
Reliance	Reliance Motor-	1	3¼	3⅜	3½	Mechanical	Sight f'd,	Reliance	Optional;	Double gr
Reliance	cycle Co.	1	3 7-16	3⅝	4½	Mechanical	by splash	Reliance	magneto	Double g
Reliance	Owego, N. Y.	2	3¼	3⅜	7	Mechanical	system.	Reliance	$25 extra.	Double gr
R.-S. Model 5	Reading	1	2 15-16	3¼	3	Mechanical;	Mechanical	Single float	Batt. or mag.	Patent gri
R.-S. Model 6	Standard	2	2 15-16	3¼	6	overhead	oiler, by	Single float	Magneto	Patent gri
R.-S. Model 7	Company,	1	3¼	3⅝	4	rocker	splash	Single float	Batt. or mag.	Patent gri
R.-S. Model 8	Reading, Pa.	2	3¼	3⅝	7	arm.	system.	Single float	Magneto	Patent gri
S. D. M., Model D	S. D. Mfg. Co.,	1	3¼	3¼	3½	Automatic	Automatic	Breeze	Battery	Double gri
S. D. M., Model E	Brooklyn.	1	3¼	3¼	3½	Automatic	sight feed.	Breeze	Herz. Mag.	Double gr
Thiem	Thiem Mfg. Co.,	1	3¼	3½	4½	Automatic	Pump and	Shebler	Battery	Double gr
Thiem	Minneapolis.	1	3¼	3½	4½	Automatic	force f'd.	or B. & B.	Magneto	Double gr
Thor, Model C	Aurora Auto.	1	2¾	3¼	3¼	Automatic	Force feed	Thor	Battery	Double g
Thor, Model F	Machinery Co.,	2	2¾	3¼	6	Automatic	Force feed	Thor	Magneto	Double g
Thor, Model K	Chicago.	1	3¼	3 3-5	4	Automatic	Automatic	Thor	Batt. or mag.	Double g
Tourist	K. & R. Motor Co.,	1	3¼	3½	4	Mechanical	Sight drip,	Amac.	Magneto	Handle b
Tourist	St. Paul.	1	3¼	3½	4	Mechanical	automatic.	or B. & B.	Magneto	Handle b
Wagner	Wagner Motorcycle	1	3¼	3¼	3½	Automatic	Force pump	Heitger	Battery	Double g
Wagner	Co., St. Paul.	1	3¼	3¼	3½	Automatic	or sight drip.	Heitger	Herz mag.	Double g
Yale, Single	Consolidated	1	3¼	3 11-16	3½	Automatic	Force pump	Breeze	Battery	Double
Yale, Single	Mfg. Company,	1	3¼	3 11-16	3½	Automatic	Force pump	Breeze	Bosch mag.	Double
Yale, Twin	Toledo, O.	2	3¼	3 11-16	6½	Automatic	Force pump	Breeze	Bosch mag.	Double

The Pope lightweight, to be built by the Pope Manufacturing Co., of Westfield, Mass., is not yet ready.

FORKS.	WHEEL BASE IN INCHES.	SIZE OF WHEELS.	TIRES.	SADDLE.	BRAKE.	GEAR.	TRANSMISSION.	GASOLINE CAP. GALS.	OIL CAP. QUARTS.	FINISH.	WEIGHT.	PRICE.
Spring	54	28		Mesinger	Thor	Dif. size	Roller chain	1½	1½	Black or red	145	$150
Spring	54	26		Mesinger	Thor	sprockets.	Roller chain	1½	1½	Black or red	150	$200
Spring	54	28	M. & W.	Mesinger	Eclipse	Adjustable		1½	1½	Smoke gray	150	$200
Merkel	53	28	or	Mesinger	Merkel b'd.	variable	V rubber	1½	1½	Orange yel.	175	$300
trussed	53	28	Kokomo.	Mesinger	Merkel b'd.	speed	or leather	1½	1½	Yel. or blue	175	$325
spring	53	28		Mesinger	Merkel b'd.	pulley.	belt	1½	1½	Yel. or blue	160	$250
one unit.	53	28		Mesinger	Merkel b'd.			1½	1½	Yel. or blue	160	$225
Triple spring.	57	28	G. & J. or M. & W.	Persons or Troxel.	Thor	Two-speed	Roller chain	2	3	Green	155	$300
ager	60	28	2½"-2¾"	Form seat	Internal	Two-speed	Planetary	1¾	1½	French gray	186	$275
pring	60	28	2½"-2¾"	Form seat	Expanding	Two-speed	gear	1¾	1½	French gray	186	$300
	51	26	P. U. 2"		Band brake	Undergeared.	S. G. Rub. Belt	1½	1	Black	108	$230
Pneumatic	55	26	P. U. 2¼"			Two-speed and	S. G. Rub. Belt	1¾	1	enamel;	148	$250
shock	54	26	P. U. 2¼"	Mesinger	Belt rim	free engine	S. G. Rub. Belt	1¾	1	paneled	155	$300
absorbing	54	26	P. U. 2¼"		and	or direct drive.	S. G. Rub. Belt	1¾	1½	tanks.	165	$300
spring	53	26	P. U. 2"	or	internal	Undergeared	S. G. Rub. Belt	1½	1		125	$275
type.	57	26	P. U. 2¼"		expanding	pulley	S. G. Rub. Belt	2	1½		170	$340
	57	26	P. U. 2½"	Troxel.		two-speed.	S. G. Rub. Belt	2	1½		175	$360
irder	54	26	P. U. 2¼"		Band brake	Direct	S. G. Rub. Belt	1¾	1½	French gray	165	$375
irder	54	26	P. U. 2¼"		None	Direct	S. G. Rub. Belt	2	1¾		165	$425
irder	62	26	P. U. 2½"		Two	Two-speed.	S. G. Rub. Belt	2	½	Optional	...	...
	70	26	2½"	Mesinger	Eclipse	Multiple	Shaft	3	2	Optional	210	$500
Cushion	55	26	2½"	Mesinger	coaster or	and free	V belt	2½	1½	black,	185	$350
pneumatic.	55	26	2½"	Mesinger	internal	disc. clutch	V belt	2½	1½	green	180	$300
	58	26	2½"	Mesinger	expanding.	engine.	V belt	2½	1½	or wine.	175	$250
ierce spring	60	28	2½"	Mesinger	Hub & band	2-speed, sliding.	Shaft	1¾	2½	Black or red	190	$350
ierce spring	54	28	2½"	Mesinger	Hub	4½—1	Belt	1¾	2	Black or red	180	$250
Barrel and	56	26	G. & J.	Optional	Musselman	Direct drive	V belt	2	½	Gray and	160	$225
lunger type.	56	28			armless.					green.		$250
ouble spring	56	26	Optional	Persons	Optional	Two-speed	V belt	2	2	Black or gray	185	$265
	56	28				if wanted						
russed	56	28	Kokomo	Mesinger	Eclipse	Two-speed,	V belt	2	3	Orange	...	$200
russed	56	or	or	or	and	free engine,	V belt	2	3	and	...	$210
russed	56	26	Empire	Troxel.	Corbin	extra	V belt	2	3	black	...	$250
-S. cushion	54	26	Optional	Troxel	Optional	6—1	Chain	2½	2	Brown	140	$210
-S. cushion	54	26	Optional	Troxel	Optional	5—1	Belt or chain	2½	2	Brown	155	$285
-S. cushion	54	26	Optional	Troxel	Optional	5—1	Belt or chain	2½	2	Brown	148	$235
-S. cushion	54	26	Optional	Troxel	Optional	4—1	Chain	2½	2	Brown	160	$335
pring	53	26	Optional	Persons	Corbin	5—1	Shaft	1½	1	Gray, black	150	$225
pring	53	26	Optional	Persons	Corbin	5—1	Shaft	1¼	1	or blue	150	$250
hiem	56	26	Optional	Troxel	Optional	Thiem	Belt	2	1½	Royal blue	150	$225
pring	56	26	Optional	Troxel	Optional	2-speed hub.	Belt	2	1½	Royal blue	150	$250
neumatic	53	28	G. & J. or M. & W.	Troxel	Thor	Direct drive	Geared chain	1½	1½	French gray	140	$200
neumatic	53	28	G. & J. or M. & W.	Troxel	Thor	Direct drive	Geared chain	2	2	French gray	160	$275
neumatic	54	28	G. & J. or M. & W.	Troxel	Thor	Direct drive	Geared chain	2	1½	Royal blue	170	$250
neumatic	56	26	Optional	Mesinger	Band or	Direct	V belt	2	2	Cream	160	$250
pring	56	28	Optional	Mesinger	optional.	2-speed.	V belt	2	2	and green	170	$300
Wagner	53	28	M. & W.	Troxel or	Eclipse	Direct	V belt	2	2½	French gray	160	$200
twin.	53	28	M. & W.	Mesinger.	Eclipse	drive.	V belt	2	2½	or maroon	165	$225
shion	55	28	28" x 2½"	Troxel	Eclipse	Direct drive	S. G. V or	1½	2	Gray	160	$200
shion	55	28	28" x 2½"	Troxel	Eclipse	Direct drive	flat leather	1½	2	Gray	160	$235
shion	55½	28	28" x 2½"	Troxel	Eclipse	Direct drive	belt	1½	2	Gray	190	$300

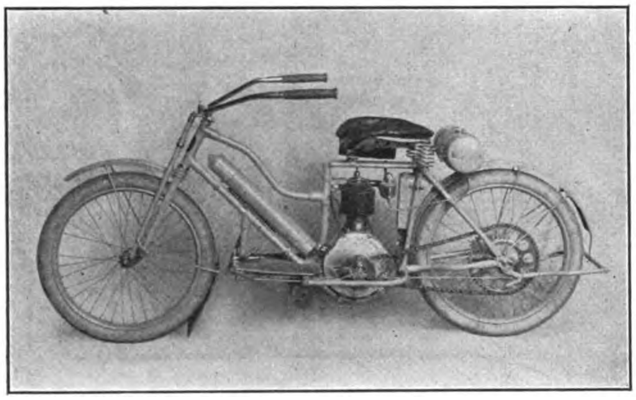
The specifications of the 1910 Torpedo have not yet been announced by the Hornecker Motor Mfg. Co.

TWO NEW ERAS THIS YEAR.

EQUIPPED with a two-speed of the planetary type, a free motor, without pedals, with hand cranking device, a form seat and having a wheel base of sixty inches, the New Era, built by the New Era Autocycle Company, of Dayton, Ohio, is, as it was in 1909, the most novel machine in the American market. But since its first appearance it has added another quality to its originality, that of having made good. In view of their success in a venture that at first appeared rather hazardous, the New Era folks have brought out a second model, with a large 3½ x 3½ motor.

The motor is started by means of a handle and a plated starting crank. Of course, a free-engine and two-speed gear is fitted, and the starting operation takes place at the "free" position. The two-speed gear is very substantially made of well designed parts, and is on the epicyclic, or planetary, principle. The ratio on the high gear is four to one, and on the low gear eleven to one. A compensating sprocket is fitted, allowing the clutch to slip on the outside of the transmission case. A three-quarter inch chain drive is used, the chain being five-sixteenth inches. The crank case is made of aluminum, is very well designed, and should eliminate leakage.

The bore of the smaller motor is 3⅛ inches, and the stroke 3½ inches, the horsepower rating being 3½. The cooling surface is unusually large, nor are there any obstructions to seriously interfere with the flow of air through the flanges. Both spark and throttle are controlled by means of Bowden wire. These wires, being encased in the tubing of the frame, give an extremely neat appearance, and at the same time are so constructed as to be very accessible.

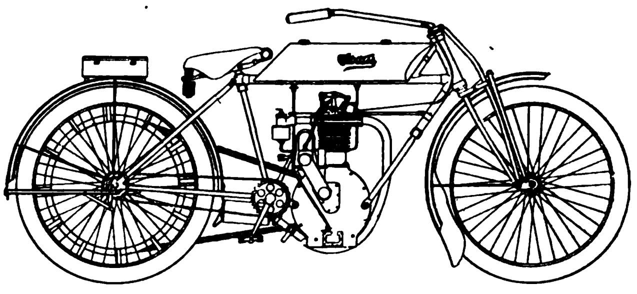


The new Era people equip all machines with a large, upholstered form seat, which is mounted on three coil springs, which tends to eliminate the vibration and also does away with saddle soreness. The Sager spring fork, the form seat, the natural position of the feet on the foot-board, and the sixty-inch wheel base make the riding of a New Era an entirely comfortable operation.

Lubrication in the New Era is of the gravity sight feed type, the oil feeding regularly when the motor is in operation. The amount of oil used is gauged by the number of drops of oil that pass the sight feed glass per minute. The oil is fed into the crank-case and it remains there, lubricating all parts of the motor. The foot-board is a natural as well as a comfortable means of supporting the rider. Upon this board are located the high and low speed lever and the brake, all operated by means of the feet. In close proximity to the rider's right heel is located the muffler cut-out.

The New Era side-car attachments are detachable from the frame and the autocycle. For delivery, the box is made of dimensions to suit the purchaser. For pleasure, the company furnishes a willow chair or cushion seat, and can also furnish a combination for delivery and to carry one extra passenger. The tread of the New Era side car can be so adjusted as to give a variation from forty-four inches closed to fifty-six inches open.

NEW THINGS IN THE CURTISS



AS already announced in these columns, the most distinctive feature of the 1910 Curtiss is the offset cylinder, with mechanically operated valves in the head. The cylinder is offset from the crank shaft, and thus the thrust of the piston is more directly transmitted to the crank during the early part of the stroke, when the pressure within the cylinder is greatest. It is claimed that offsetting, while it increases power, reduces the pressure by fully twenty per cent. Both valves are placed in the head of the one-piece cylinder, their stems inclined at an angle of about 45 degrees, and they open directly into the cylinder. By this means the cylinder interior is left perfectly plain, the head being slightly dome shaped. A rocker arm, mounted centrally over the cylinder head and actuated by a single vertical rod from the cam shaft, operates them both. The piston pin bearing has an extra large surface.

Lubrication is automatic and a float keeps the oil at a positive level in the crank case at all times. The oil well in the case is unusually large; so that if one should run out of oil while out on the road, it would be possible to travel a considerable distance before having to obtain more lubrication.

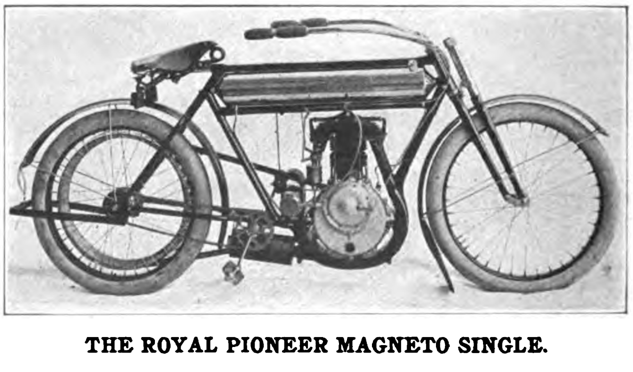
* * *

THE 1910 ROYAL PIONEER

NOT at all disconcerted by their recent fire, which almost destroyed their entire plant, the folks who operate the Royal Motor Works at Worcester, Mass., appeared at the Show right on time with several healthly looking samples of their 1910 machine, a substantial, thoroughly up-to-date single designed to develop four horsepower. The engine, having a displacement of 30.50 inches, is of the valve-in-the-head type and fitted with Hess-Bright ball bearings. It is firmly mounted at three points and braced in the line of the belt pull. A valuable feature is the crank case oil window.

Noticeable in the Royal Pioneer is the accessibility, simplicity and compact arrangement of parts, ample proportions without clumsiness, strength without undue weight. Interchangeability is a feature. The two flywheels are alike and the valve chambers are also duplicates with all the valve operation parts. The valves are operated by pull rods.

The Pioneer spring fork is truly double all the way through, double forks, double hinged, with double plates at wheel end, double roller bearing, double bearing for the sliding barrel and finally compound springs. Its action is smoothness itself and it is entirely free from that racking "jump," of which riders sometimes complain.



THE ROYAL PIONEER MAGNETO SINGLE.

THE **MARVEL NEW BUT FINE**

ENTIRELY modern, in fact, in many particulars ahead of contemporary practice in design and construction, is the Marvel, built by the Marvel Motorcycle Company, of Hammondsport, N. Y., and exhaustively described in our previous issue. This machine comprises a Curtiss 4-5 h. m. o. i. v. roller bearing motor, with one piece offset cylinder and head; nickel steel valves and connecting rod, automatic oiling device with a large oil well in the crank case, gasoline compartments in a long, low frame; oil tank in the seatpost tube, V belt transmission, improved Marvel-Curtiss carbureter, extra heavy mudguards, a new magneto spark plug, long exhaust pipe, double grip control, together with a score of standard features, the kind that have been tried and found not wanting.

The bars are long, V-shaped with drop ends, tough enough to withstand a fall without breaking. They are fitted with Erie control and long rubber grips. The 28 x 2½ inch coppered steel rims are nicely enameled to match the frame. Thirty-six ten gauge diamond E spokes are used in each wheel. The rear wheel is fitted with the new Eclipse brake and Eclipse knock-out hubs are used in the front wheel.

⁂

TWO-SPEED ON THE RELIANCE

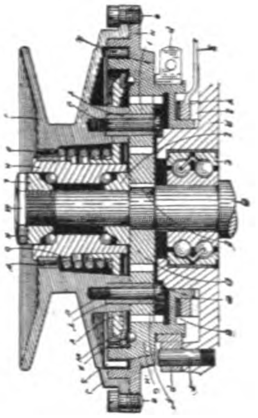
EQUIPPED at the purchaser's option with a two-speed and free engine device the three models of the Reliance, exhibited by the Reliance Motorcycle Company of Owego, N. Y., included 3½ h. and 4½ h. singles and a 7 h. twin. All models are fitted with mechanical valves, the lubrication being by sight feed according to the splash system. The carbureter is of special design. Ignition is optional, a magneto being supplied at an extra cost of $25. The control is double grip, twist-of-the-wrist and transmission is by means of a V belt. The frame is substantially built and trussed forks are part of the equipment. The wheel base is fifty-six inches and the diameter of the wheels either twenty-six or twenty-eight. In the matter of tires, saddles and brakes the purchaser may choose either Kokomo or Empire, Mesinger or Troxel and Eclipse or Corbin respectively.

The most noticeable feature of the new transmission or speed changing pulley of the Reliance is its remarkable compactness; a compactness arrived at without crowding the working parts, which are of the most liberal dimensions.

THE RELIANCE BATTERY SINGLE.

Referring to the accompanying cut, it will be seen that the motor shaft *B*, supported by the double ball bearing *C* in the motor case *A*, has solidly keyed to it, at *E*, the driving pinion *D*. Another double ball bearing *K*, by which the cones *L*, L^1, are attached to the outer end of driving shafts *B*, supports the V-shaped drive pulley *J*. Four planetary pinions, of which two only are shown at *F* and *F*, run upon hardened and ground sleeves *T*, *T*, held securely in the bosses formed on pulley *J* by the screws *U*, which are still further supported on their outer or free ends.

G is an internally toothed clutch member ground to an accurate taper fit into the external clutch housing *H*, which is accurately fitted to pulley *J* and held in position by the retaining screws *e*, *e*. The clutch member *G* is supported at its inner axial length directly on the hub of the motor, but to make the alignment positive at all times the outer portion runs on the rollers *R* guided by *S*. A spider *V*, having four arms extending between the bosses holding the planetary pinions *F*, *F*, supports the ring *W* which forms one side of a ball thrust bearing, of which the balls *X* and the clutch body *G* form the other members. A powerful spring *O*, encircling the member *K* is compressed against the spider *V* at one end and the interior portion of the pulley *J* at the other end. Adjusting screws *P*, *P*, allow the tension of spring *O* to be easily adjusted at any time from the outside of pulley *J*. *Y* is the movable and *Z* the immovable members of an ordinary ring cam which, when operated circularly by the lever *y*, moves the thrust washer *N* in an axial direction away from motor case *A*. At *P* is shown a section of the brake band supported by pin *r*.



Reliance Two-Speed.

The two controls *p* and *y* are operated by one lever on the motorcycle in such a manner that a backward movement of this lever forces the cam ring *Y* and *Z* apart and also tightens brake band *p*. Forcing the cam ring apart throws clutch member *G* out of contact with clutch ring *H*, and tightening brake band *p* holds clutch member *G* from turning. Assuming that the motor is running, shaft *B* turns in its usual direction and the gear *D* causes the pinions *F*, *F*, to travel in the same direction over the internal teeth of *G*, but at a greatly reduced speed. As these pinions are supported on the pulley *J*, the latter consequently is driven at a much lower speed than that of shaft *B*.

Moving the motorcycle control lever to its forward position loosens brake hand *p* and also allows the cam ring *Y* and *Z* to assume a position where the spring *O*, operating through the spider *V* and thrust bearing *Wx*, can thrust them together. At the same time spring *O* forces clutch *G* into positive contact with the clutch ring and the entire mechanism, including pulley *J*, is locked as one piece and revolves at the same speed as the motor shaft *B*.

Moving the control lever on the motorcycle to a position midway between its extreme movements operates cam rings *Y* and *Z* to push the clutch *G* out of contact with *H*, but does not tighten brake band *p*. Clutch *G*, therefore, is free to move, and with the motorcycle and motor running, revolves backward by reason of the pinions *F*, F^1, acting as counter shafts between the driving gear *D* and the internal teeth of clutch member *G*.

To be thoroughly satisfactory and effective the control of a two-speed motorcycle must be of the simplest character, that it may be easily handled when the rider is also engaged in manipulating his machine. The Reliance two-speed and free motor transmission fills this requirement, for nothing can be more easily handled than one lever with a short movement. A Reliance rider can easily start from a standing position.

G&J

The Result of Over Six Y

in Motorcycl

What It Means t

You take no chances when you specify G & J Motorcycle Tires and Double Clincher Rims. This equipment has given such excellent service year after year that it has become universally recognized as the highest standard, and unequalled by any other Motorcycle equipment on the market.

The G & J Motorcycle Tire is made from the choicest of high grade rubber, and it is put through slow, tedious, expensive processes t develop its toughness and durability to utmost. As a result, G & J Motorcycle T enable you to travel any road and any dista with perfect confidence that you will not held up or bothered with tire troubles.

The G & J Double Clincher Rim has pro so much more satisfactory than the old s single clincher rim that it is now demar

G & J TIRE CO

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DETROIT—286 Jefferson Ave.
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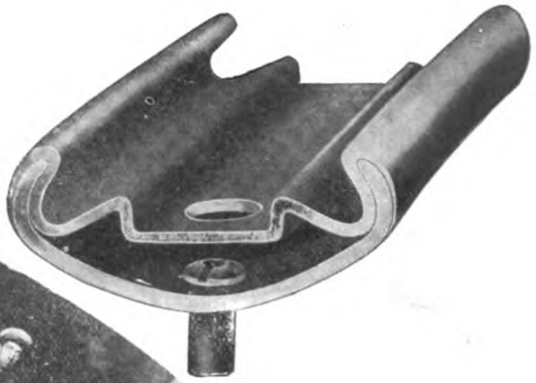
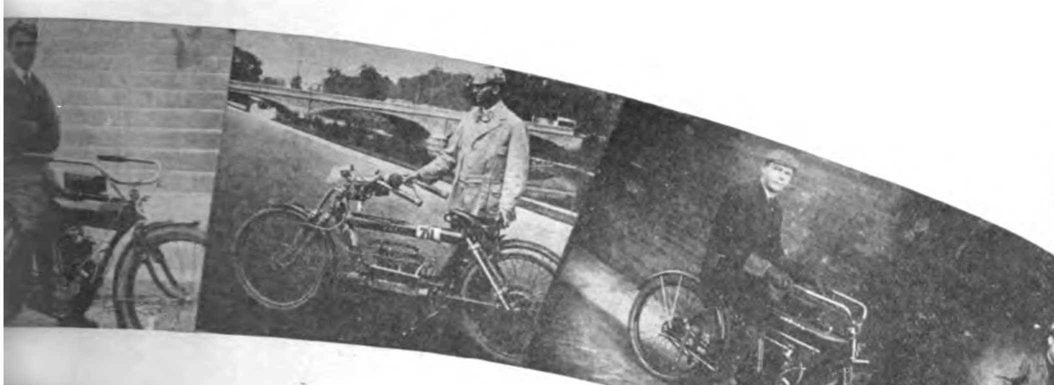
SAN FRANCISCO—414 Van Ness Ave.
DENVER, COL.—204 Sixteenth St.
BUFFALO—912 Main St.
PHILADELPHIA—713 N. Broad St.
ST. LOUIS—4148 Olive St.
LOS ANGELES—1011 S. Olive St.





IRES

ars Experience and Leadership
Tire Construction
the Motorcycle Rider

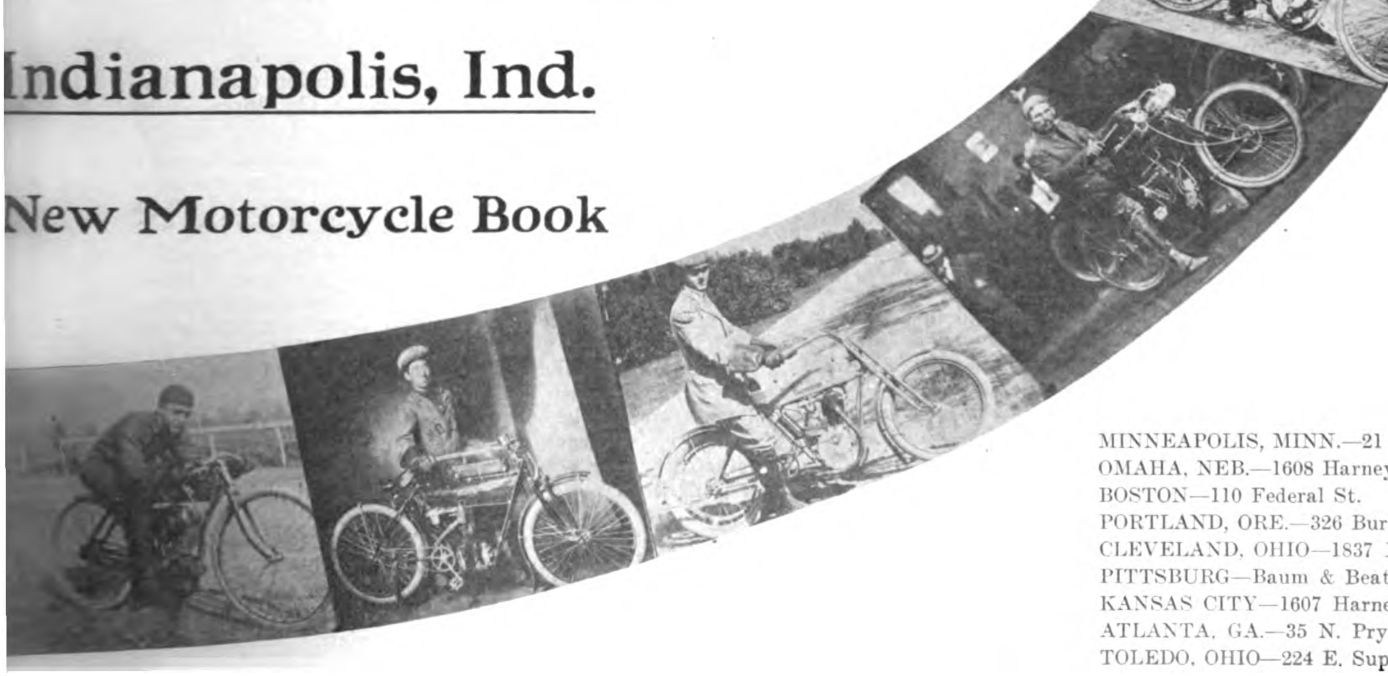
y practically every experienced Motorcycle der. It does not bend or dent as easily as e single clincher. Its strength relieves a reat deal of the strain on the spokes, which revents the wheel from getting out of lignment.

Another advantage of the construction of the ouble Clincher Rim is the fact that the nipples on the ends of the spokes do not interfere with the perfect seating of the tire in the channel of the rim. When tightening the spokes they often extend through the nipple and damage the tire—this trouble is also eliminated.

Remember—you can have this equipment by simply specifying it when you place your order. There is no extra charge or delay in shipment.

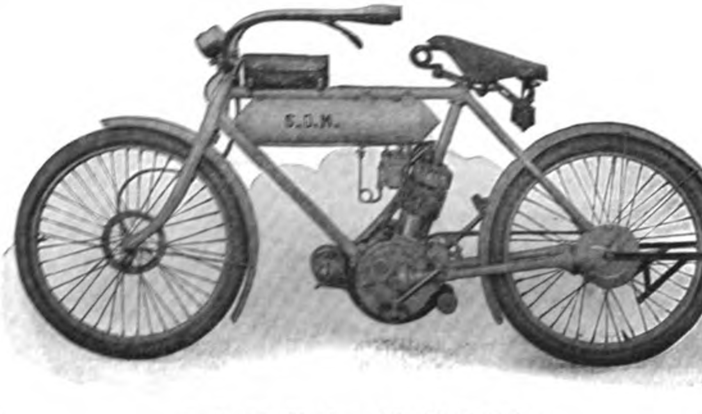
Indianapolis, Ind.

New Motorcycle Book

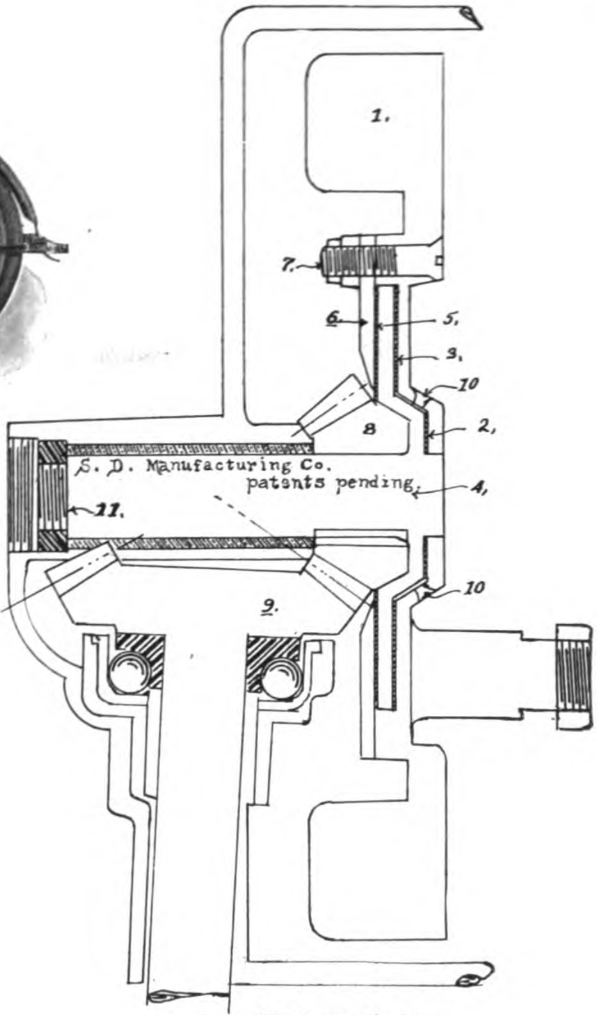


MINNEAPOLIS, MINN.—21 S. Second St.
OMAHA, NEB.—1608 Harney St.
BOSTON—110 Federal St.
PORTLAND, ORE.—326 Burnside Ave.
CLEVELAND, OHIO—1837 Euclid Ave.
PITTSBURG—Baum & Beatty Sts.
KANSAS CITY—1607 Harney Ave.
ATLANTA, GA.—35 N. Pryor St.
TOLEDO, OHIO—224 E. Superior St.

THE S. D. M., A SHAFT-DRIVEN SINGLE



S. D. M. Single, with Shaft Drive.



S. D. M. Transmission.

MANY new and interesting features are embodied in the latest star in the motorcycle firmament, which shone for the first time at the Garden Show, and is known as the S. D. M., built by the S. D. Manufacturing Company of Brooklyn. This company has spent many years in perfecting a single cylinder shaft drive together with other details in an endeavor to produce a motorcycle comparable in simplicity, strength and wearing qualities with the best on the market. The 1910 models are both single cylinder machines, one with a piston displacement of 26.96 cubic inches, and the other having an engine with a 30.50 cubic inch compression area. Some of the best known standard parts are used, but the machine is not in any sense simply an assembled model, being the result of new and definite designs, and embodying two absolutely unique features. The first of these is the shaft drive. This is of a very neat and effective design, composed of bevel gears, operating in connection with the flywheel shaft (on the transmitting side), and a steel shaft rotating in ball bearings at both ends, and run through the frame to the rear wheel, to which is attached a gear case and bracket combined. This construction encloses all of the constant working parts, allowing no opportunity for road dirt to grind them out. The bevel gears all operate in a bath of oil, and thus, being automatically lubricated, they require no attention. The makers of this model exhibited a set of gears that have stood solidly during two years of constant hard service and are still in good condition today.

The manufacturers have also fitted a patent device of their own which has proved to give perfect shock-absorbing service. The above drawing illustrates this fitment, the figures indicating the following parts: 1, flywheel and crank pin; 2, 3 and 5, composition friction discs; 4, driving screw; 6, steel friction disc; 7, adjusting screws; 8, driving gear; 9, transmission gear; 10, series of three holes; 11, thrust collar.

When the power applied with the first explosion of the engine produces its effect on the crank pin and flywheel disc, the driving shaft is caused to slip between the composition friction discs, which are held in position by six adjusting screws, placed at equal distance around and through the flywheel disc. The six adjusting screws are employed to obtain a tension on the steel friction disc, which in turn causes the necessary friction on the driving shaft, and thus the first sudden shocks of the engine are entirely absorbed. The driving gear, composed of hardened steel and keyed to the driving shaft, then rotates—free of any shock—in connection with the transmission gear, which is also of hardened steel and a solid part of the transmission shaft.

A series of three holes are placed in the flywheel disc, which connects with an oil well that is formed by the driving shaft, the flywheel disc and the composition friction discs, which gives automatic centrifugal lubrication. The thrust collar prevents the driving and transmission gears from separating.

The motor employed in these machines is the S. D. Company's model with cylinder and exploding head in one piece. The intake and exhaust valves are large with plenty of cooling surface. The piston is the latest type, made of gray iron with large bearings. On the inner wall of the cylinder is an oil bath constantly supplied by splash from the bottom of the engine, through numerous small holes drilled below the rings, and on the up stroke of the piston there is spread in the cylinder a film of oil which gives lubrication that has not been exposed to combustion. The motor mounting forms a part of the seat post mast. The frame is very low. The gas and oil tank is cylindrical in shape and of generous dimensions. Ignition is by means of batteries or Herz magneto. The Breeze carbureter is used, and all the machines are equipped with an extra large coaster brake of standard make.

* *

THE "Motor Show of Canada" will be held at Toronto from Feb. 24 to March 3. This will be a very important show. F. H. Lemon, who handles the Indian and Curtiss machines in West Toronto, has already taken space and will have both these machines on view.

ACCESSORIES AND EQUIPMENT

The Little and Big Things Exhibited at the Garden Show, by the Manufacturers of Parts, Described and Illustrated

TEN types of saddles and fine magneto covers, mud guards and tool boxes attracted much attention at the booth of the H. & F. Mesinger Manufacturing Company, 1801-1803 First avenue, New York. The three-piece leather top feature of the Mesinger saddle product was most favorably commented upon. It is designed to hold the saddle in proper shape and prevent stretching. The Mesinger saddles are divided into five styles of the Cavalry type and five Standard models. All Mesinger saddles, as is generally known, are equipped with friction shock absorbers, which are attached between the two rear springs to check the rebound of the extension spring, and minimize side sway. The shock absorbers can be adjusted to the weight of the rider by loosening the lock-nut, adjusting the side-bolt as desired, and tightening the lock-nut again. The front torsion spring has the well known hinged joint which acts freely and prevents breaking.

The Mesinger Cavalry saddle is highly recommended by many experts and riders, owing to the correct shape of the seat. This is padded with curled hair and curved on the style of a horseback saddle to prevent slipping forward or backward, which avoids that crampish hold to the handle bar, gives a pleasing and comfortable position and adds to the safety and pleasure of motorcycling. These saddles, and also the Standard type, are guaranteed for a year.

❧ ❧

HEADLIGHTS, generators and brackets were exhibited by the Badger Brass Manufacturing Co., of Kenosha, Wis., and New York. This company showed a new lamp in the form of a Solar headlight with rear red signals. This is made of heavy brass reinforced and riveted in assembling. It is 6 inches high and 4½ inches long, has removable powerful 4-inch B. & L. Solar lens mirror reflectors, front glass, and 5/16 ft. tip. It is made for a flat bracket, which fits in a casting concealed inside the back of a single piece body and fastens with a screw. It is intended to be supplied with gas from a Solar generator or tank.

The Solar generator is specially designed and constructed for motorcycle use, after a thorough investigation of the requirements. It is made from seamless drawn shells of heavy brass, and the famous Solar gas generator principle with an added needle valve give perfect control of water feed. There is a screen in the carbide cup to separate used carbide and simplify cleaning. It is supplied with universal adjustable brackets, or with special brackets which can be attached to any motorcycle.

❧ ❧

CARBURETERS and strainers were shown by Wheeler & Schebler, of Indianapolis, Ind. Schebler carbureters are made of brass or aluminum. The bowl design combines compactness with practicability, it serving as a reservoir as well as having the float chamber embodied therein. The float is made of cork, heavily shellacked and hinged. The gasoline valve is much larger than ordinarily used. Gasoline is supplied through a reversible union which permits the feed pipe to run in any direction desired. A drain cock is placed in the bottom of bowl for cleansing purposes. The spraying nozzle is in the center of the chamber, eliminating the changes in the quality of the mixture such as occur in carbureters where the nozzle is located to one side of the oil reservoir. This is particularly true while ascending and descending hills and making turns; furthermore, the mixture will remain stable in spite of the vibration to which the machine may be subjected. Owing to the design of these carbureters they occupy very little space and can usually be mounted at almost any point on a standard machine.

One of the great disadvantages of many carbureters used heretofore has been the lack of a satisfactory method of securing a uniform mixture of gas and air at different engine speeds. The regulation of the composition of this mixture either had to be effected by hand or was accomplished by more or less automatic devices that were far from satisfactory. The Schebler perfectly performs this function.

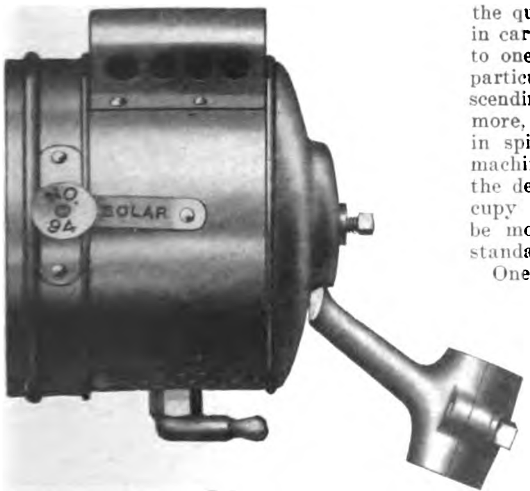
❧ ❧

TWO types of chains were exhibited by the Diamond Chain and Manufacturing Co., Indianapolis. Chain No. 150, especially designed for a motorcycle, has a ⅝" pitch with rollers ¼" wide by .400" in diameter. It has nickel steel rivets .200" in diameter, hard polished rollers with side bars which have beveled edges and reamed holes. The popularity of this chain among motorcyclists is the natural result of its successful performances under all conditions.

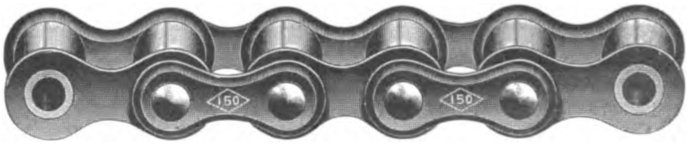
Chain No. 45 was extensively used as a driving chain when motorcycles were universally equipped with block chains. It is 1" pitch and is manufactured with blocks ⅛", 3/16", and ¼". It is always supplied with extra heavy side links in widths of ¼" and 5/16". It is assembled with polished straw tempered nickel steel B blocks, bright B chamfered sides polished and embossed, with Diamond perforation. This chain is now principally used as a starting chain.

❧ ❧

"RIST-FIT" Grinnell gloves were exhibited by the Morrison-Ricker Manufacturing Company, of Grinnell, Iowa. A snug, smooth fit is secured at the wrist by virtue of the patented "V" of soft leather in the cuff. Constant tugging at the gauntlet is never required to keep it feeling right. Another exclusive Grinnell feature is the ventilated back, which affords cool hands in hottest weather. In addition to their many other good qualities, Grinnell gloves give long service. While dressy and soft as kid, they are soundly made and wear like iron. It's due to the leather, which is dressed in their own tannery by their special chrome process, combining softness and flexibility with toughness. When soiled Grinnell gloves are washable in soap and water or gasoline.



Solar Lamp.



Diamond Chain.

TIRES, INNER TUBES, BELTS AND GRIPS

G & J Tire Company's exhibit attracted much attention. The company handed out a very unique catalogue which proved interesting to all motorcycle enthusiasts. It included many photographs of well known racers and F. A. M. endurance riders. The G & J line of motorcycle tires for 1910 is made on the double clincher style and supplied with three kinds of treads, corrugated, basket weave and Bailey.

The G & J representatives also made it a point to explain to those interested in motorcycling the merits of their double clincher motorcycle rim. This rim possesses several times the strength of the single clincher rim, though but very little heavier in weight. This strength relieves much of the strain on the spokes and therefore lessens the liability of the wheel getting out of alignment. Another good feature of this rim is the fact that the ends of the nipples are set below the channel or tire seat, allowing the spokes to be tightened without any danger of their extending through the nipples and damaging the tire. It is also claimed that the double clincher construction holds the tire on more firmly. It gives the combination four points of contact instead of two.

G & J Tire Company will also market the coming season their well-known socket joint inner tube as well as their rough rider grip, tire sleeves, pedal rubbers, repair kits, together with a number of minor accessories.

* *

MORGAN & WRIGHT'S exhibit included a complete line of motorcycle tires, tubes, rims and grips. The 1910 feature shown by the Detroit firm was its white tread tire, this stock having been selected because of its exceptional wearing and puncture-resisting qualities, despite which it will be sold at the same price as the M. & W. old gray tread. The 1910 tires are made, as in 1909, with the corrugated, Bailey and basket weave treads, but the corrugations and knobs have been made wider and thicker in each case.

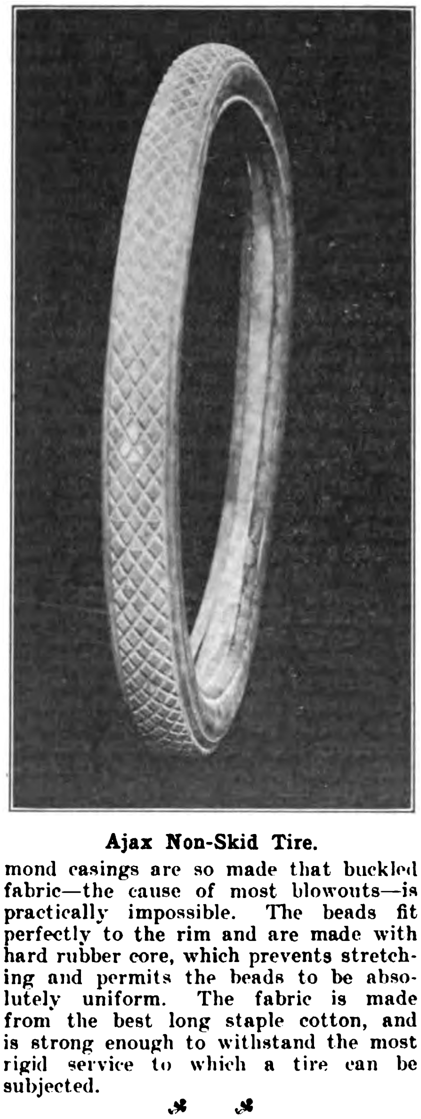
Each casing is made with a flap so placed that it holds the tube well up from the rim, making it almost impossible to pinch the tube or get the flap under the edge of the casing when applying. The fabric and rubber are inseparably united by a special vulcanizing process. When the first tread is finally worn down, the fabric will be found in perfect condition for a re-tread. The inner tubes are constructed of several plies of rubber. The M. & W. tubes are made in both endless and butt-end styles. Double and single clinch rims and rubber grips are also produced at the M. & W. factory.

* *

CASINGS, inner tubes, tire protectors, patches, repair outfits, in fact everything that has to do with tires were exhibited by the Goodyear Tire & Rubber Company, of Akron, O. This concern has recently placed on the market an inner tube manufactured of Up-river, rubber washed and dried, compounded with toughening and vulcanizing ingredients according to the Goodyear formula, and calendered to the exact thickness required, on rolls heated to just the right temperature.

* *

THE Continental Rubber Works, of Erie, Pa., exhibited a new line of motorcycle casings. They have heretofore specialized on bicycle tires, and their success in that line has been due to the fact that they have made tires suitable for the service required. They have made a careful study of the service and requirements of a motorcycle tire, and have in their employ enthusiastic riders who have carefully and thoroughly tested their product. The Diamond casings are so made that buckled fabric—the cause of most blowouts—is practically impossible. The beads fit perfectly to the rim and are made with hard rubber core, which prevents stretching and permits the beads to be absolutely uniform. The fabric is made from the best long staple cotton, and is strong enough to withstand the most rigid service to which a tire can be subjected.



Ajax Non-Skid Tire.

* *

GUARANTEED for 5,000 miles, Ajax non-skid tires were shown by the Ajax-Grieb Rubber Company, of Trenton, N. J. Both the automobile and motorcycle non-skid models have the same style diamond-shaped raised rubber studs and differ in appearance from other anti-skid tires. The raised parts are 3-16 of an inch in depth, arranged diagonally across the tread and far enough apart to prevent squeezing and flattening into a smooth surface when under weight and in contact with the road surface. The quadrilaterals on the Ajax tread, pointing in the direction in which they run, are said to offer much less resistance, and wear less than the usual round or square rubber button or stud. The Ajax non-skid is extra heavy, the 3½-inch size having five plies of fabric. A heavy breaker strip for the fabric layer between the inner pliable rubber cushion and the tough outside layer is used.

* *

RIBBED tread moulded tires, with four plies of fabric, were shown by the B. F. Goodrich Company, Akron, O. The Goodrich product is built like an automobile tire, having strength without cumbersomeness, and resiliency without any fragile parts. The fabric is of the best grade, closely woven, and so prepared as to secure perfect adhesion between the tread and the fabric. The clincher bead is reinforced to insure against rim cutting or breaking away. In fact, these tires are made with precisely the same care and of the same high-grade materials as the famous Goodrich automobile tire. In addition to tires, this company manufactures inner tubes, grips and rubber V belts.

* *

AT the exhibit of the Pennsylvania Rubber Company were shown steel stud, flat tread racing and corrugated heavy tread casings, gray and red inner tubes, rubber V belts, short and long ball-bearing handle bar grips, rubber patches and repair outfits.

The Pennsylvania corrugated heavy tread tires are made with a desire to provide a casing which is unusually strong as regards friction, fabric and tread. The fabric is Sea Island cotton of three plies, held together with pure gum friction, and the tread is of a white stock such as is put into a Pennsylvania wrapped tread auto tire, with heavy corrugations to prevent skidding.

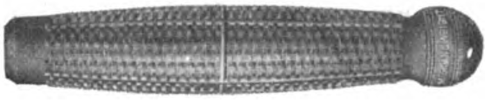
* *

SOMETHING distinctly new is the checkered tread shown by the Empire Tire Company, of Trenton, N. J. This tread is handsome in appearance and its makers claim that it is a perfect non-skidder. Empire tires are extra heavy and very strong. The best quality of Sea Island fabric used.

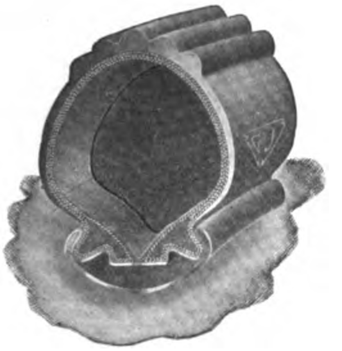
* *

A NEW tire was shown by the Diamond Rubber Company, of Akron, O., well known as bicycle tire makers. The Diamond tire is as nearly puncture-proof and non-skidding as a tire can be made. Although the tread is very heavy, the casing is remarkably resilient.

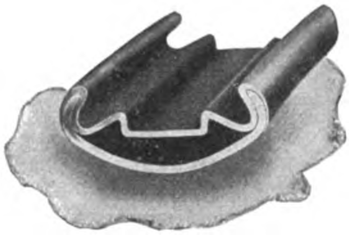
SHOWN BY THE TIRE MANUFACTURERS



Morgan & Wright Rubber Grip.



G & J Corrugated Tread.

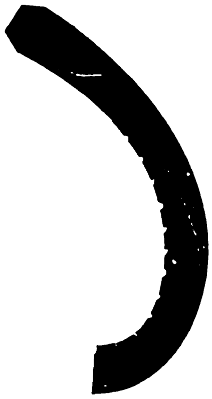


G & J Rim.

G & J Bailey Tread

MORGAN & WRIGHT CLINCHER-MOTOR CYCLE
MORGAN & WRIGHT DETROIT.

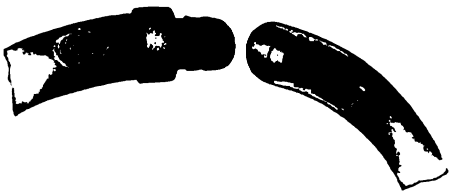
M. & W. Bailey Tread.



Pennsylvania Belt.

CONTINENTAL-ERIE-MOTOR CYCLE TIRE
MFD BY CONTINENTAL RUBBER WORKS, ERIE, PA.

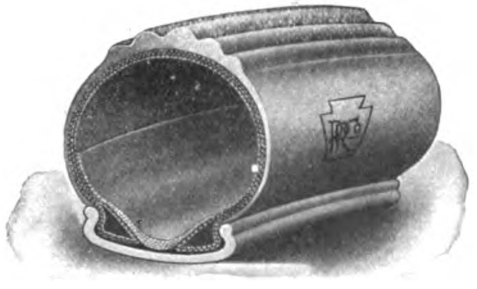
Erie Non-Skid.



Empire Inner Tube.

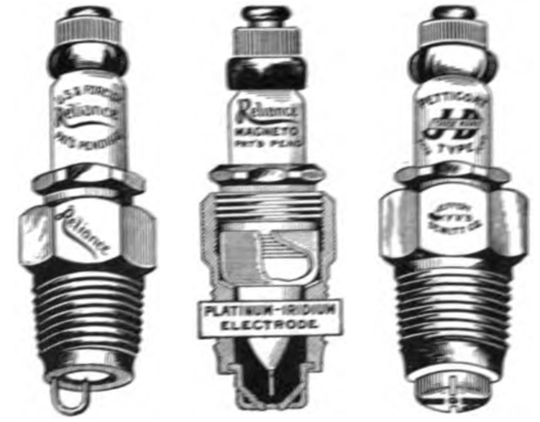
B. F. Goodrich Rubber Grip.

Empire Checkered Tread.



Penn. Corrugated Tread.

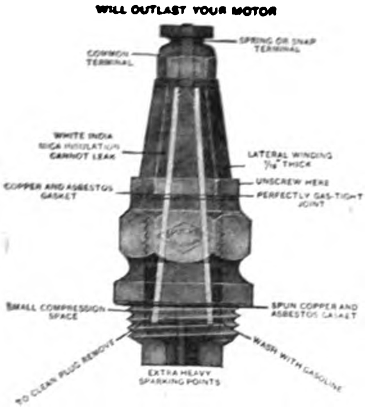
Lemke-Briggs.



Three Types of the Reliance.

Herz Bougie Mercedes.

THE LATEST IN SPARK PLUGS


WILL OUTLAST YOUR MOTOR
SPRING OR SNAP TERMINAL
COMMON TERMINAL
WHITE INDIA MICA INSULATION CANNOT LEAK
LATERAL WINDING 1/16" THICK
COPPER AND ASBESTOS GASKET
UNSCREW HERE
PERFECTLY GAS-TIGHT JOINT
SMALL COMPRESSION SPACE
SPUN COPPER AND ASBESTOS GASKET
TO CLEAN PLUG REMOVE
WASH WITH GASOLINE
EXTRA HEAVY SPARKING POINTS

C. F. Splitdorf.

Red Head.

THE Jeffery-Dewitt Company, of Newark, N. J., exhibited in addition to its regular Reliance "Spark in Water" plug, four new ones, the Reliance magneto plug, which lists at $1.00; the J-D Conical, the J-D Petticoat, and the J-D closed end type, all of which list at 75 cents each. With the list on the regular Reliance reduced to $1.00, this makes an extremely popular-priced group. These plugs are characteristic, as they all embody certain similar points in construction. The caps, binding nuts, bushings and method of supporting the porcelain are the same in all of the plugs. This practically makes them all interchangeable.

The Reliance magneto spark plug is the result of an insistent demand for a plug designed along the well-known Reliance principles, but made especially for service where the current is generated by a magneto. The central electrode or insulated sparking point is a solid piece of platinum-iridium. This electrode is baked in the porcelain by a secret process, which does away with cements, nuts, gaskets and the like, and prevents compression leakage. The porcelain is of a new heat-proof composition, especially developed for the purpose. It is flexibly supported by asbestos wicking compressed within a metal packing ring, making the porcelain, packing and packing ring one element, which is instantly removed.

The terminal cap is of solid stock, securely crimped on the head of the porcelain, and entirely independent of the central electrode, making it impossible to disarrange or wreck the plug by screwing the binding nut down too tightly. The binding nut is formed so as to receive any form of terminal clip, or wire can be fastened between the nut and cap.

The J-D plugs are offered as a simple, inexpensive, highly efficient group, from which, it is said, any motorcyclist can make a satisfactory selection. They are built along the same improved lines as the Reliance, but do not embody the latter's electrical features. Both workmanship and material are excellent.

THE National Sales Corporation, of 232 West 58th street, New York, exhibited the well-known Red Head spark plug, designed along the accepted lines of spark-plug construction, with features embodied therein designed to give special results to the user. The porcelain and mica cores are aged for nine months by a new process which does not make them brittle. They are then formed and baked, and can be thrown with great force against the floor or a hard surface, but will only rebound and not break. Under a red-hot heat it is asserted they do not even bend.

The shell or base is substantial and compact, turned from solid steel, with a solid brass bushing nut to surround the porcelain or mica core. The bushing may be forced down upon the shoulder of the porcelain to make a tight joint. One copper asbestos washer is used in packing the core into the shell and sufficient packing is used to prevent its blowing out. Still another feature is in the electrode, which will stand any heat from either a magnet or battery and coil. The shell is so made as to permit the interchange of porcelain and mica cores. The mica magneto plug works equally well on coil and battery. Extra Buick terminals are given free of charge.

* *

THAT they will last longer than your motor is the claim made by C. F. Splitdorf, Walton avenue and 138th street, New York, for his spark plugs, exhibited at the show. Experience has proven that this claim is fully justified. The white India mica insulation is guaranteed against leakage; the gaskets are of spun copper and asbestos. The plug is easily cleaned.

* *

THE motorcycle exhibit of Herz & Co., Lafayette and Houston streets, New York, included their well known magnetos, spark plugs and fitments. There are six types of the former, known respectively as 3 H 1, 4 H 1, 4 H 2, 6 H 2 V, 6 H 1, and 6 H 2, these figures indicating the horsepower and the number of cylinders of the machines for

Thor **IV**

THE MOTORCYCLE SUPREME

Thor IV

A Beautiful and Practical Composite of the thoughts and desires of the riders and dealers worked out by a mechanical engineer, who for 25 years has been looked upon as an authority by the world, in Bicycle Construction, Bearings, Air Motors and Gasoline Engines. He has produced in the ***Thor*** IV that which will suit man and the roads best.

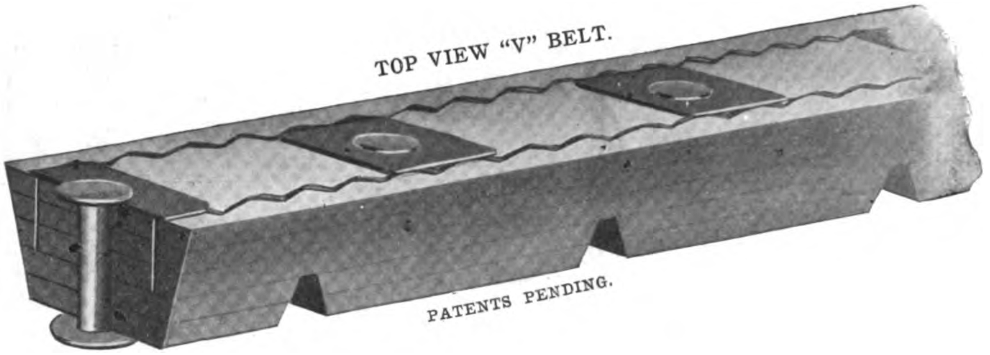
We want the Best Merchants and they want the Best Motorcycle. That's why we make the ***Thor*** so good. Get busy now. Write today for our contract.

Aurora Automatic Machinery Co.

Main Office
1307 Michigan Avenue
CHICAGO, ILL.

Thor **IV**

SHOEMAKER MOTORCYCLE BELTS


TOP VIEW "V" BELT.
PATENTS PENDING.

READ THIS

Are fast becoming the "Standard." They resist the action of water, oils and gases and are not affected by atmospheric or climatic conditions. Require no dressing of any kind. They insure to motorcycle owners the greatest power transmission, economy and utility.

WRITE FOR BOOKLET AND PRICES.

Manufactured Solely By

APEX BELTING CO.

242 Chestnut St., Philadelphia, Pa., U. S. A.

AN ENTHUSIASTIC USER WRITES US

Dec. 6, 1909.

I am employed as an electrical inspector of the Philadelphia Suburban Underwriters' Association covering Delaware, Montgomery, Chester and Bucks Counties in Penna., and Camden Co., N. J. The territory I cover on a single Magneto Merkel equipped with your Belt. I had nothing but belt trouble until using your make, and since then have covered 2,500 miles in all kinds of weather.

The Belt is as good as the day it was put on and I expect four times the distance.

Very sincerely,
W. G. CROWELL.

FACTS

THE SHOEMAKER BELT

will transmit the greatest possible percentage of power.

It has greater tensile strength than any other belt.

It will stretch less than any other belt.

It will outwear any other belt.

It will not slip when wet.

It is the least expensive because it will wear the longest.

It is the only belt that will give a Motorcycle OWNER the full measure of power, utility and pleasure expected from his machine.

MADE OF "BEAVER" LEATHER

TANNED FROM

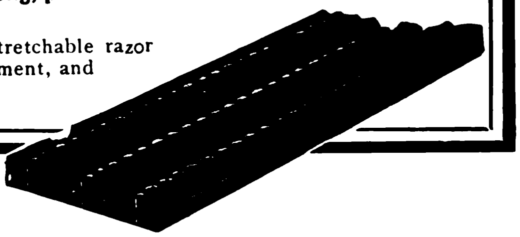
SELECTED, IMPORTED HIDES BY A NEW SECRET PROCESS THAT PRODUCES A PLIABLE BUT EXCEEDINGLY TOUGH, LONG-LIVED LEATHER.

The SHOEMAKER Non-Stretchable FLAT MOTORCYCLE BELT

Manufactured to meet the demands of those who prefer a flat belt drive. Requires no belt dressing, will not stretch, is strong, pliable and durable.

Not affected by water, oils, gases or climatic conditions.

Constructed of two plies of "BEAVER" leather with a ply of non-stretchable razor strop webbing in the center, all cemented together with a water-proof cement, and stitched through with three rows of waxed thread.



which they are designed. The magnets are forged of Syrian magnet-steel in the shape of circular disks about a half inch thick. The usual polar pieces are completely avoided, the rotary armature being ground to fit into the spaces between the magnet poles.

The end casings, cast of aluminum, are fastened to the magneto with steel bolts and contain the dividable annular ball-bearings for the armature.

The armature is built up in its body of plates of soft Swedish iron upon which the two windings are wound, the primary and the secondary, and on one side of which is the condenser built right into the armature and rotating with it. The primary winding or low tension winding is of thick copper wire, and the secondary or high tension winding is of very thin wire. The secondary winding connects right up to the primary and the condenser forms a shunt to both. The current is alternating with two maximum points during each revolution of the armatures. The primary winding connects on the other side of the contact-breaker.

The Herz plug, Bougie Mercedes, guaranteed for one year, is composed of indestructible double stone insulation, non-carbonizing, self-cleaning, and soot and oil proof. This plug is made in all threads, with short and long shank, for battery and magneto ignition.

* * *

EXHIBITED by the N. S. U. Motor Company, in addition to their two-speed gear and free engine, described in our last issue, were belt fasteners in three styles, belt punches, Shamrock Gloria belts, Ada leather belts, N. S. U. spark plugs, imported Peter Union, S. E. and Continental tires, N. S. U. non-skid and puncture proof bands, and N. S. U. horns.

The S. G. belts have been improved by the use of an entirely new formula for both rubber and canvas. The corrugations on the under side of the belt are deeper, thus allowing the belt to conform to a very small pulley without its bulging out at the sides. The belt will wear longer and on account of the even strain when the belt is in tension there will be no cracking.

The N. S. U. people carry a complete stock of the better class of motorcycle accessories, including not only everything required by N. S. U. riders, but also many fitments which can be applied to any other machine.

WITH the coming of high-powered motors and fifty or sixty-mile speeds, Joseph W. Jones, inventor of the speedometer, was one of the first to realize the importance of placing his instrument where it could be more easily read and where it could not be injured by an accidental slip or "spill" in the sand. He left the driving gear in the front wheel, but he moved the speedometer up to the handlebar, right in front of the rider's eyes, and out of harm's way, and connected the two by a flexible enclosed driving shaft, similar to the type he was using on automobiles. This is the Jones speedometer exhibited at the Show, reliable, light in weight, substantial enough to withstand all vibration, with a 3-in. dial and large, easily-read numerals. Mr. Jones has designed special fittings for all of the standard motorcycles in this country, and made brackets that will hold under all conditions.

* * *

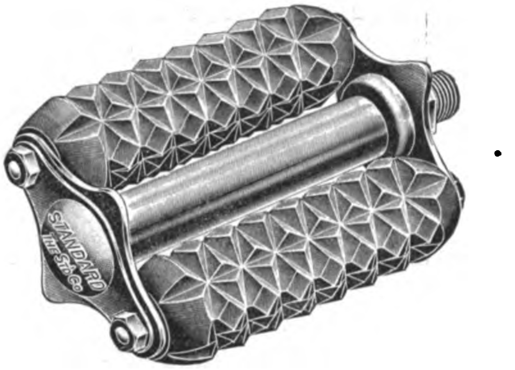
CHAINS are—well, simply chains, and there is not much to be said about them. However, it would be impossible not to be impressed with the excellence of material and workmanship of the motorcycle chains exhibited by the Whitney Manufacturing Company, of Hartford, Conn. This chain has a pitch of ⅝ in., the width of the roll being ¼ in. It is furnished with a patented safety connecting link, very reliable and easy to operate.

* * *

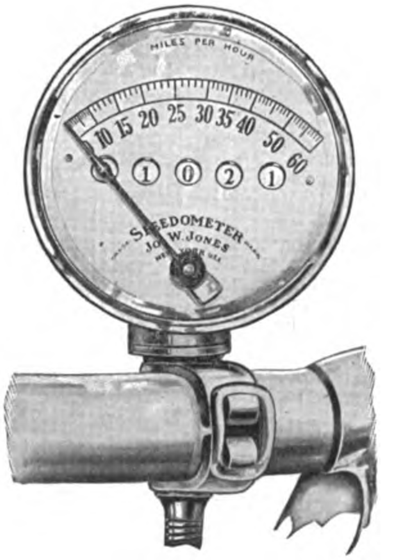
NO less than seven types of motorcycle magnetos were exhibited by the Bosch Magneto Company, 223-225 West Forty-sixth street, New York. Of these seven types two are new, "Daiv" and "Dag." "Daiv is for small, two cylinder, 45 degree engines. Dag is for two cylinder engines of either two or four cycles, the magneto being driven at engine and camshaft speeds respectively.

* * *

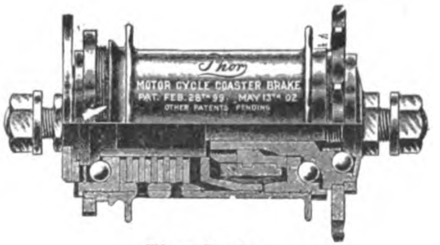
A FUNNEL especially adapted to motorcycle use was shown by the Dover Stamping & Manufacturing Company, of Cambridge, Mass. The funnel is small enough to fit into any tool-bag or to be carried with ease in one's pocket. It is heavily copper plated and fitted with a serviceable strainer. This handy device costs only fifty cents.



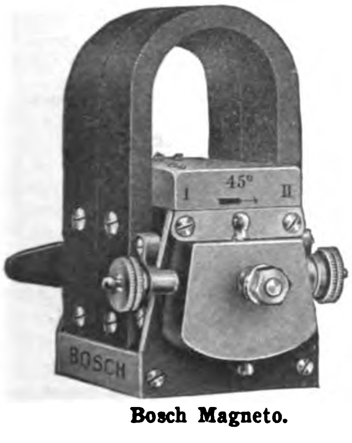
No. 3, Standard Motorcycle Pedal.



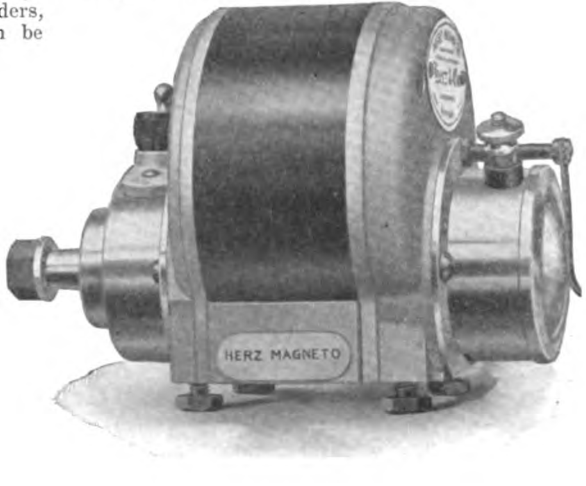
Jones Speedometer.



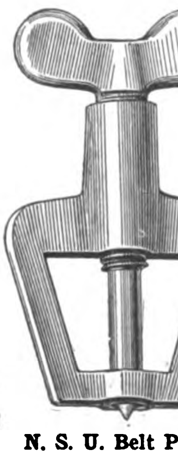
Thor Brake.



Bosch Magneto.



Herz Magneto.



N. S. U. Belt Punch.

THE ECLIPSE FREE ENGINE DEVICE

FEATURING the motorcycle exhibit of the Eclipse Machine Company, Elmira, N. Y., was the Eclipse Free Engine pulley, which can be applied to any belt-driven machine, and it will be part of the equipment of the following 1910 models: Merkel-Light, Harley-Davidson, M. M., Emblem, Racycle, Greyhound, Yale, Curtiss, Marvel, Wagner, Royal Pioneer, and the Reading Standard.

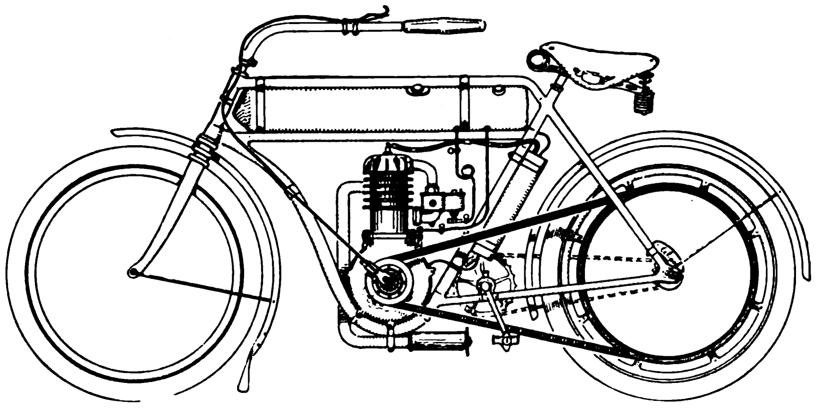
The Eclipse device is applicable to any belt driven engine. It comprises a cone clutch on the crank shaft, and is incorporated in the pulley. Merely pulling a wire or lever throws the clutch out of engagement with the pulley and permits the latter to run idle, which means that although the engine is operating it is running free, and will not transmit power to the rear wheel until the clutch and pulley again are thrown into engagement.

The Eclipse people also exhibited their brakes and front hubs, already described in this paper, and their head fittings. The latter consists of upper and lower ball shell, upper and lower ball cones, lock washer and lock nut. The parts are all nickel plated and finished in Eclipse quality. These fittings are for 1 5/16 inch head (inside measurement) and take ¼ inch balls.

* * *

AT the stand of the Veeder Manufacturing Company, of Hartford, Conn., was shown a trip cyclometer especially made for motorcycles. The mechanism is stronger than that of the regular bicycle cyclometer and is designed to withstand the harder usage due to the high speed of motorcycles. A much stronger type of star wheel is supplied and special friction is used which prevents the star wheel from spinning when going at a high rate of speed. The new bracket which is regularly supplied with the cyclometer is adjustable and by a simple arrangement can be made to fit on all makes of motorcycles. A striker is regularly supplied with this instrument which makes it a most substantial and durable instrument for motorcycles.

* * *

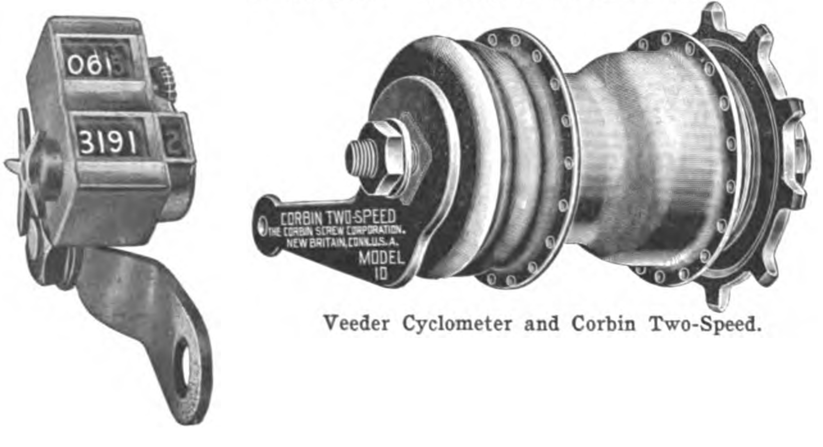


Eclipse Free Engine Shown Fitted to a Machine

THE New Departure Manufacturing Company, of Bristol Conn., showed its 1910 model internal expanding band coaster brake. The company has been at work on this model for months past. The popular concave design of former New Departure models is retained, also the essential mechanical principle. The principal change is in the brake itself. The construction of the new brake is exceedingly simple, consisting of only two working parts, the brake band and the brake lever. Both are made of heavy tool steel and practically indestructible. The brake band is ¾-in. wide and ¼-in. thick and circles the entire brakeplate. The forward end of the band is anchored to the plate by a heavy stud, leaving the remainder of the band free. The lever is pivotted to the brakeplate by a stud. The jaw of the lever fits snugly against the free end of the brake band and the toggle of the lever extends downward in half circular shape and engages with the new heavy brake actuator.

Upon applying back pedal pressure, the new actuator engages with the lever in such a way as to force the brake band into expansion contact with the brake drum at all points of the circle. The brake band expands against the direction of the rotation of the hub. This is a radical departure from the old model and renders it absolutely impossible for the brake to wind up, bind or lock. In the new model, also, the old trouble of "picking up" the pedals has been eliminated.

The company is also making a very handsome model of new knock-out axle front hub for motorcycles and chime bells that are particularly adapted for motorcycle and tri-car use.



Veeder Cyclometer and Corbin Two-Speed.

THE exhibit of the Corbin Screw Corporation, New Britain, Conn., comprised two-speed, coaster and band brakes and front and rear hubs. The Corbin people consider their band brake ideal for the following reasons: First—It has sufficient braking surface for any motor. Second—It cannot stick or lock, as the braking surfaces are not metal to metal, but metal to a specially prepared asbestos band, increasing the life of the braking surfaces several times over. Third—The braking surfaces do not require any lubricant to keep them from cutting or sticking, although by lubricating they will not lose their braking power.

The same hub is used for both chain and belt drive motorcycles. On the belt drive hubs a sprocket replacing collar is used, which takes the place of the driving sprocket. In this way dealers can supply either style by carrying a small stock of driving sprockets and sprocket replacing collars, instead of two distinct models, as has been necessary heretofore. The Corbin Duplex Band Brake can be furnished with any chain line, any size sprocket and any number of spoke holes.

* * *

MOTORCYCLISTS who are willing to pay a fair price for a good lamp, with proper attachments, may safely deal with the Twentieth Century Company, 17 Warren street, New York, which exhibited several models, among them the following: No. 101, front diameter, 5 ins., 4-in. ground Mangin lens reflectors, brass polished or nickel finish; for machines with flat brackets. No. 102, same description and prices, with lug on each side and two-prong bracket No. 14¾. No. 4 Headlight, "separate generator" lamp, brass nickeled, aluminum reflectors. No. 9 Generator (for above lamps), brass nickeled; height, 6 ins.; diameter, 2¼ ins.; carbide capacity, 6 oz. It supplies searchlights approximately five to six hours; headlights, six to eight hours. The company gets out a list showing what size brackets must be used in attaching Twentieth Century lamps to any make of machine, also the manner in which the generator is attached. Lamp No. 102 will fit almost any mount.

* * *

A. W. DUCK advertises elsewhere in this issue a spring tandem attachment of merit. Write him about it.

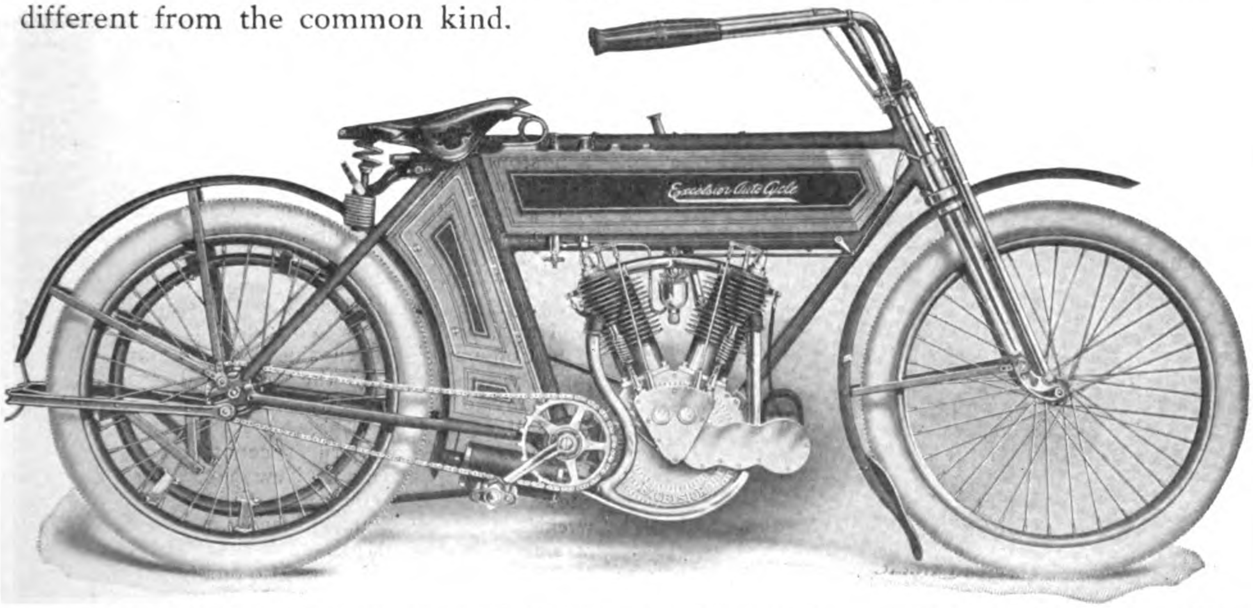
EXCELSIOR AUTO-CYCLE

THE TWIN YOU HAVE BEEN WAITING FOR

Adhering to our policy of presenting nothing till we know it is right, we have refrained from meeting the demand for a double cylinder Excelsior till we had overcome the objectionable features heretofore found in this type of motorcycle and had thoroughly tried and proved the many valuable details that make

THE EXCELSIOR DOUBLE

different from the common kind.



This Machine has every good feature of the regular Excelsior Auto-Cycle such as low saddle position, free motor, automatic force feed oiler, silent, vibrationless motor, independent chain adjustment, quick acting stand, etc., combined with power and speed to meet any demand. ¶ Its range of speed, ease of control and instant response to throttle and spark mark the greatest advance in motorcycle construction. ¶ Equipped with a high tension magneto, driven by enclosed gears running in oil-tight case. ¶ Our new catalog E 10 gives full description of both Single and Double Cylinder Models. WRITE FOR IT.

EXCELSIOR SUPPLY COMPANY

ESTABLISHED 1876. 233-237 RANDOLPH ST., CHICAGO, ILL.

STANLEY T. KELLOGG, 2312 Broadway, New York, Eastern Distributor

THE PALACE SHOW

THE Palace Show, which opened on New Year's Eve and ran until the following Friday, was a great success. It is a proper preliminary to the Garden Show, which opened the day after the Palace exhibition closed. If there were no Palace Show one could hardly fancy what the results might be; for if an attempt were made to take care of all these exhibits at one time the result would be confusion, and, to the looker-on, complete exhaustion. Thus it is altogether proper and advisable that there is a sort of division of interest.

The Palace Show is a good, sensible show. It attracts the husky fellows and caters to the middle and upper middle classes, these two classes being the best in the world. On the contrary, the Garden Show goes in for style and, besides the middle and upper classes, it takes in the society element. The feature of the Palace Show is business and of the Garden Show beauty, expensiveness and éclat. The Palace Show is perhaps dominated by accessories more than it is by cars. For this reason it is the favorite haunt of the jobber and agent. In the Palace Show were many firms who are catering to motorcyclists; some of them have already gotten deeply in the motorcycle field, while others are as yet only flirting with the proposition. The reason they are merely coquetting with the motorcycle at present is because they are in love with the automobile business. As a matter of fact, most makers of anything for the auto which is really worth while are driven to supply auto needs. It is for this reason that many of them have at the present time given motorcycling so little attention. But they have an eye on it and will no doubt enter the motorcycle field in good time.

At the Palace Show there was quite an important group of tire manufacturers, which included the G & J Company, Morgan & Wright, Goodrich Company, Diamond Rubber Company, Goodyear Tire and Rubber Company and the Empire Tire Company, all of whom are working hard and successfully for motorcycle business. Other rubber houses who are more or less interested in motorcycling and who were present at the Palace Show were the Fisk Rubber Company, Ajax-Grieb Rubber Company, the Batavia Rubber Company, the Pennsylvania Rubber Company and the Hartford Rubber Works Company. The Pennsylvania Rubber Company are well on in the field. The Hartford Rubber Works Company are experimenting, but of course are old hands in the grip game. The Fisk people are ready to market their tires. The Ajax-Grieb folks are also on deck. Their new motorcycle tire was illustrated in the January 1 issue of MOTORCYCLE ILLUSTRATED.

The carbureter section was well represented. Among those who showed carbureters not only for cars but also motorcycles were the Breeze Carbureter Company, of Newark; Wheeler & Schebler Company, of Indianapolis; the Byrne-Kingston Company, of Kokomo, Ind., and A. R. Mosler Company, of New York.

The big demand for magnetos is being taken care of by quite a number of people who have already made a great success in the automobile field. Among the firms who had magnetos on view at the Palace Show were the following: Bosch Magneto Company, Herz & Co., Lavalette & Co., the Nilmelior Company, all of New York, and the Lutz-Lockwood Manufacturing Company, of Aldene, N. J., which showed the XX magneto.

Batteries were on view at the stands of the Lutz-Lockwood Manufacturing Company, the Union Battery Company, of Belleville, N. J.; the Westchester Appliance Company, of the Bronx, and the Eastern Carbon Company, Jersey City.

A goodly array of spark plugs were on view, including those of C. F. Splitdorf, Herz & Co., Emil Grossman Company's Redhead and A. R. Mosler Company's Spitfire, all these firms located in New York, while the Janney-Steinmetz Company, of Philadelphia, showed the Flashlight plug.

Coils: Pittsfield Spark Coil Company, Dalton, Mass.; C. F. Splitdorf and Geizler Bros., of New York; Byrne-Kingston Company and the National Coil Company, both of Kokomo, Ind., and the New York Coil Company, of New York. Chains: Diamond Chain and Manufacturing Company, of Indianapolis; Whitney Manufacturing Company, Hartford, and the Baldwin Chain and Manufacturing Company, Worcester, Mass. Oils specially adapted for motorcycle use: The Havoline Oil Company and George A. Haws, both of New York, and the Kingston Lubrication Company, of Kenosha, Wis. Lamps: The famous Solar was shown by the Badger Brass Manufacturing Company, of Kenosha, Wis., and New York City, and C. M. Hall, of Detroit, Mich.

Accessories: Standard speedometer, shown by the United Manufacturers of New York; Ever-ready, by the Stewart & Clark Company, Chicago; Cryder and Coe wrenches; Dover Stamping and Manufacturing Company's strainer funnels; Morrison-Ricker Manufacturing Company's gloves; Ray-Bestos Company's brake liners; the Veeder Manufacturing Company's cyclometer and odometer and complete line of speed indicators; the Sireno Company's and Randall-Faichney Company's horns; J. Harry Sager's shock absorber and the Shaler & Company's electrical vulcanizer.

GUY M. GREENE, OF CHICAGO, IS DECLARED TO BE AN AMATEUR

THE appeal of Mr. Guy M. Greene, of Chicago, Ill., from the decision of Mr. Roland Douglas, former Chairman of the F. A. M. Competition Committee, which placed him in the professional class, has been sustained. It is the opinion of the majority of the Competition Committee that inasmuch as there is no record that this matter has ever been brought before the committee, it is acting within its jurisdiction to take cognizance of the appeal, and to act upon it. The opinion of the committee, therefore, is that Mr. Guy M. Greene has never been a professional under the rules of the F. A. M., and that he should now be, and should always have been, listed as an amateur by this committee.

The above opinion of the committee is based upon the fact that a careful search of the records does not show that Mr. Greene was ever properly notified that he had been listed as a professional by Mr. Douglas, and therefore that he had never had an opportunity to make any protest or defense in the premises. It is also based upon the fact that a careful search of the records does not reveal one single word which would go to show that the Competition Committee as a whole had ever acted upon his case. It is still further based upon the fact that Mr. Guy M. Greene makes a sworn statement to the effect that he never knowingly competed against a professional, that he never received cash prizes for races or ever even competed for cash prizes. This means that in the committee's opinion Greene has always been an amateur.

Well, Sir!

You've been to the first Show (down). You've seen the 1910 M. M., and you have compared it with the others. The Madison Square Garden motorcycle exhibit was as instructive as it was interesting. It gave us the opportunity of standing the M. M. once more alongside the other good ones from this country and abroad. It gave you the chance for minute comparison. Does the M. M. look good to you? Did we make good our promises? Is the M. M. for 1910 all that we claimed it was? If you were there we'll leave the answer to you.

The center of attraction in the whole motorcycle section was the M. M. booth. Many things contributed to make it so. The M. M. clutch, at only $15 per, was one. The M. M. 3½ hp. Battery Special at $200 was another. (There is more genuine value in this machine at that price than in any other $200 motorcycle shown at the Garden.) The M. M. 7 hp. Twin with roller bearings and Bosch magneto ignition was one of the features.

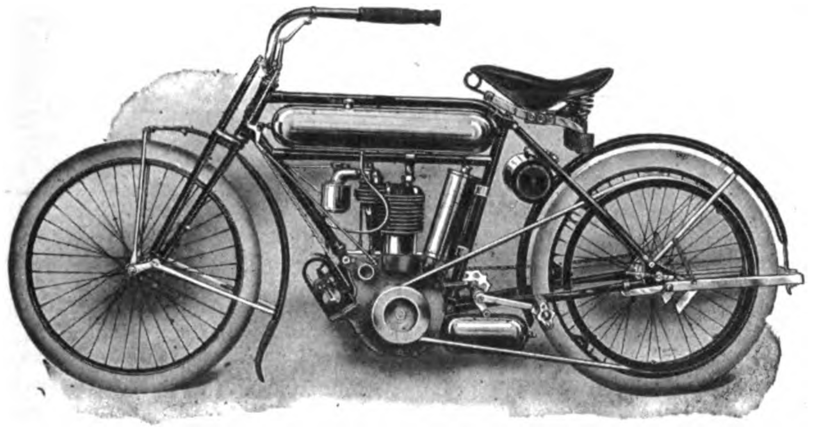
But the real surprise, the genuine sensation of the show, was the M. M. "4." Words can't describe the impression it created. Every rider who saw it, every critic who examined it, was unqualified in his praise. One newspaper man said: "That machine is a full year in advance of its competitors." Another said: "The American Motor Co. has shown greatest improvement in minor as well as in prominent features of design." And so it went throughout the week. The praise was unanimous, and very gratifying to us indeed.

We knew the M. M. was good. We knew also that originality and carefully worked out details would make a big impression. If you were there you saw for yourself. If you did not visit the Garden we advise you to call on the nearest agent and see the M. M. at once. We'll furnish his address if you want it. We'll also send catalog and other literature.

AMERICAN MOTOR CO., 716 Centre St., Brockton, Mass.

Member Motorcycle Manufacturers' Association

Distributing Stores: Boston, 273 Huntington Ave.; New York, Geo. P. Jenkins, 10 W. 60th St.; Buffalo, L. E. French, 895 Main St.; Chicago, G. M. Greene, Mgr. American Motor Co., 2127 Michigan Ave.; Dallas, American Motor Co. of Texas, M. M. Building; Los Angeles, Lincoln Holland, 1034 So. Main St.



M. M. "4"

Mechanical valves. 30.50 cubic inches. Roller bearings. Automatic oiling system. Automatic stand. Original M. M. spring fork. Emergency fuel tank. Flat or V belt drive. Low frame. Large tires, etc., etc. Price, $225.

NEW F. A. M. CONSTITUTION AND BY-LAWS

SOME time since, in accordance with a resolution passed at the F. A. M. meet at Indianapolis, President Willis got together a number of Western members of the Committee on the F. A. M. Constitution and By-laws and they prepared a complete draft of the same. As a supplement to the Western meeting there was a meeting of the Eastern members held at the Prince George Hotel, New York City, on Tuesday, Jan. 11, the session lasting from ten o'clock until three. Among the committeemen who were present to discuss the proposed constitution and by-laws were President Willis, Stanley T. Kellogg, W. F. Hapgood, Dr. J. P. Thornley, E. L. Buffum, A. G Chapple, W. F. Mann, W. F. Remppis, LeRoy Cook and F. P. Prial.

The discussion was in a quiet mood throughout the entire meeting. The proposed constitution and by-laws were somewhat changed in minor points but the entire instrument withstood the rigid investigation very well. Indeed, it may be said that President Willis and his Western friends are to be congratulated on the strong constitution and by-laws which they have prepared. It is far and away ahead of the old F. A. M. constitution. It is fitted to meet the present needs of the organization, and to take care of its future growth. A general meeting of the F. A. M. will be held in Chicago during Motorcycle Show week and the constitution will be subjected to still further revision and, when satisfactory, it will become the governing code of the F. A. M. The high points of this new code are as follows:

The phrase "owning a motorcycle" is stricken out, because some of the members of the F. A. M. do not own such, as the heads of concerns, etc. The supreme controlling power of the F. A. M. is placed in the hands of a National Assembly. This National Assembly will meet each year between June 15 and Sept. 15, and will consist of delegates sent to the assembly from various districts. There is also a provision made for honorary membership for any person who has rendered distinguished service to motorcycling. The federation is divided into four districts as at present. The national officers are president, vice-president in each district, secretary and treasurer. The executive governing body of the F. A. M. is subject always to the direction and resolutions of the National Assembly, invested in a board of directors.

There shall be six directors elected annually who, together with the two living preceding ex-presidents, and the president, shall constitute the board of directors, the total being nine. Each director will be elected for a term of three years, but only two will be elected each year, so that there will always be a rotation in office, and the board of directors will never be a body composed entirely of new men. The annual national committees are: Membership, legal action, competition, highway improvement, towns and hotels, transportation and facilities, and press. The president appoints these as well as the chairman of each committee. It is also provided that one of the members of the board of directors shall always be a member of a national committee. There was also provision made for the proper taking of mail votes, for the proper forwarding of monies to the division treasurers and to the national treasurer. All officers handling funds must furnish bonds, to be paid for by the national organization. It is specified just how long any monies may be kept in the hands of subsidiary officers, all of which is a big step ahead of the old way.

Any regularly organized motorcycle club having a membership of not less than fifteen may become affiliated with the F. A. M. if the club will enroll not less than seventy-five per cent. of its membership. In this case the initiation fee is waived.

Any person not a member of the F. A. M. who desires to enter a race-meet under F. A. M. sanction must pay $2.00 to the official referee, whereupon he will be considered an F. A. M. member for fifteen days. The referee will forward the money and application to the national secretary who will issue a membership card in the usual time.

The present official emblem of the F. A. M. may not be changed without specific direction on the part of the National Assembly. If a card of membership is lost duplicates may be obtained for ten cents. Provision was also made for an exact record being kept of the membership of each district, so that the officers of each district as well as the national officers will be thoroughly posted as to the membership of the national body. In future instead of one-third, but twenty-five per cent. of all moneys shall be retained by the district divisions. This has been found necessary because the national body has been hampered for funds. Such are a few of the high points of the new constitutional instrument. Altogether it may be stated that it is a thoroughly practical and reasonable code.

THE Harlem Motorcycle Club, at a meeting held on Jan. 4, gave a warming up for its members in the form of a clambake. As the invitations mentioned that there would be no charge, and that it was for members only, nearly all the boys were on hand. A large table was set (with wrapping-paper table cover), and then we got busy. Mrs. Rotholz, wife of our treasurer, certainly knows how to make clam chowder. L. H. Guterman taught the boys the art of eating hard shell crabs with the use of a wrench, hammer and cold chisel. W. L. Coursen did justice to seven bottles of beer. Jack Gold, the aristocrat of the bunch, refused to drink beer from the bottle, and demanded a glass. He went without beer. F. Heironymus discovered a new soup. Milton Levy silently made away with three portions of everything and went home with the cramps. All the boys were in a jovial mood, and Arthur Bergenstein told some dandy stories he just brought over from Berlin. Officers for the coming season were elected as follows: L. H. Guterman, president; William P. Hubschmidt, vice-president; William L. Coursen, captain; Floreth Heironymus, 1st lieutenant; Jack Gold, 2d lieutenant; Gus Rotholz, hon. treasurer, and Milton Levy, secretary. Executive Committee: Thomas Carobine, William T. Hookey, Jr., Arthur Bergenstein, Frank W. Gregory and Jack Jaches. Jack Gold was appointed as delegate at large to represent the club at the meetings of the Associated Motorcycle Clubs, besides the president, captain and secretary.

THE Rochester M. C. celebrated the New Year by moving into its new quarters, located over the United States Garage on Plymouth avenue, formerly the headquarters of the Rochester Automobile Club. The rooms have been handsomely decorated and no doubt will make comfortable quarters for the 152 members of the club. The present officers are: President, G. H. Ellsworth; vice-president, G. Maur; corresponding secretary, W. J. Diffel; financial secretary and treasurer, E. F. Fournaise.

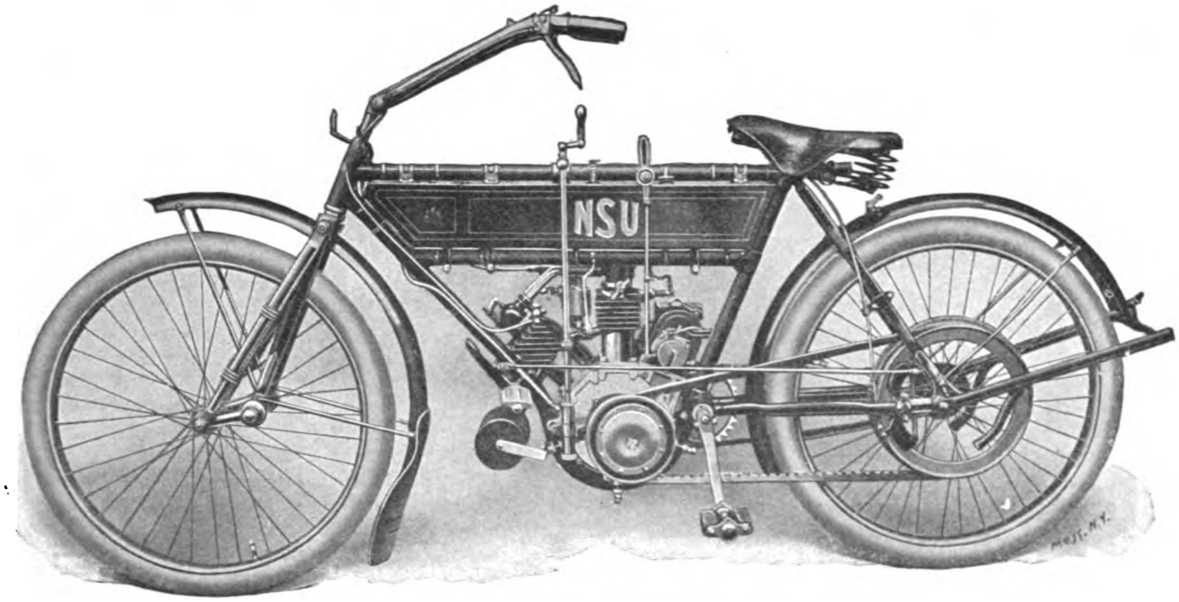
The City of Homes M. C., of Springfield, Mass., recently elected the following officers for the ensuing six months: President, A. H. Buch; vice-president, H. W. Smith; secretary, C. D. Hobart; treasurer, R. L. Hartwell; board of directors; G. A. Tuckey, E. E. Mayforth and E. E. Fuller; captain of runs, William Tebo.

Some of the profits of the Buffalo Motor Show, to be held for a week, starting Feb. 14, will be devoted to furthering the proposed new boulevard from Buffalo to Niagara Falls.

The Wisconsin Legislature is talking about an automobile tax for 1910 of $50 a year, the money to be spent on the highways. As usual, the proposition comes from the farmers.

THE ANNUAL DILEMMA — IT'S SOLUTION

NSU



N. S. U. 3 H. P. TWIN ROADSTER, UNDERGEARED

IN presenting the 3 hp. Twin Roadster to the motorcyclists for 1910 we feel confident that the call of the more conservative rider will be met with to a most exacting degree.

Time has proven that the higher the power of a motorcycle the less is the comfort; the larger the motor, the heavier the motorcycle: this means more wear, more tear, more noise, vibration, expense and less pleasure.

With these circumstantial facts before us, we set about with "The Cream of Suggestions" from over 20,000 N.S.U. Riders and designed The N. S. U. Roadsters; 2 Hp. Single and 3 Hp. Twin. Our many years of motorcycle manufacturing experience and the phenomenal performances of the 3 Hp. Roadster during 1909 will be sufficient guarantee for the faithful and positive performance of above machines, considering the most adverse conditions.

In particular, the 3 Hp. Twin is the most superb-riding all-round motorcycle that YOU have ever ridden on. Its flexibility and ease of handling commend it for all day and every day work, because it can be ridden in traffic and over rough roads where the heavy type of motorcycle would be out of the question.

Physicians, Salesmen, Collectors, and in fact all business men are unanimous in its praise. The features that meet the necessities of business men must surely appeal to the motorcyclist whose sole aim in the possession of a machine is the pleasure of "getting about" in comfort at a pleasing yet safe speed.

Among the Specifications which tend to make this motorcycle the most complete in appointment are: Twin Cyl. Undergeared Motor, Bosch Magneto, M. O. Valves, REAL Spring Forks, Low and Comfortable Riding Position, Handlebar Control, Foot Rests, Quick Action Stand, Wide and Quickly Removable Mudguards, Thickly Spoked Wheels, Two Brakes, S. G. Rubber V Belt, Light Weight and Wonderful Power.

We invite your closest attention, feeling positive that the result will be proclaimed "THE WORLD'S BEST."

DON'T FAIL TO GET CATALOGUE "M" IMMEDIATELY

N. S. U. MOTOR CO. [Members M. M. A.] 206 W. 76th St., N. Y. City

DeROSIER BREAKS 100-MILE RECORD AT LOS ANGELES

LOS ANGELES, Jan. 9 (Special Wire).—At the Coliseum Track today Jake De Rosier, riding an Indian, won the 10 mile professional race, beating Whittler, Lingenfelder and Samuelson, and cut the world's record, 97.59⅗, down to 92.06. De Rosier smashed all the world's records from 30 miles to 70 miles. Here Whittler took the lead and wrote his name on the slate from 70 to 90 miles, after which De Rosier took charge of things and captured the honor of the first position and the new 100 mile world's record. Whittler finished second, Lingenfelder third and Samuelson fourth. Summary:

Miles.	Old Record.	New Record.	Rider.
5	....	4.26	De Rosier
10	....	8.25	De Rosier
15	....	11.38½	De Rosier
20	....	16.57	De Rosier
30	29.41	29.29	De Rosier
40	38.45	34.08⅖	De Rosier
50	48.21	44.35⅖	De Rosier
60	57.51	53.07⅗	De Rosier
70	69.07⅕	61.52⅗	Whittler
80	78.34⅕	71.41⅖	Whittler
90	88.08⅕	81.20	Whittler
100	97.59⅗	92.06	De Rosier

* *

NEWARK.—The New Jersey M. C. took possession of their new home at 18 New street, on Jan. 4, motorcyclists from Hackensack, Paterson, New York and other cities outside of Newark being present. Dr. J. P. Thornley spoke on the advantage of joining the F. A. M. and pointed out that he expected to grant five hundred sanctions for race meets in 1910. Robert Morton, the temporary president of the recently organized Metropolitan Association of Motorcycle Clubs, was another speaker, as were also a number of club officers and guests. Henry Page, the new president of the club, planned the affair, while George Post, a charter member of the organization and one of the most enthusiastic tourists among the New Jersey riders, acted as toastmaster. Besides the talking there was tobacco, grub and music.

* *

CHICAGO.—On Jan. 3, a committee appointed from the Chicago Motorcycle Club succeeded in getting a hearing before the committee of five aldermen appointed by the Mayor and, after much talk and discussion the motorcycle tax was referred back to the License Committee advising them to reduce the tax from $10 to $3 and, with this, another ordinance regulating the speed, and requiring motorcycles to carry a bell, horn or whistle, also an efficient muffler.

At the annual meeting of the Chicago Motorcycle Club, held Jan. 5, the following officers for 1910 were installed: President, R. D. Buell; vice-president, G. E. Covington; secretary, R. E. Underhill; financial secretary, E. N. Hendricksen; captain, W. L. Walsh; first lieutenant, A. Johnson; second lieutenant, W. S. Covington; sergeant at arms, J. C. Hosman.

* *

YONKERS, N. Y.—The Yonkers Motorcycle Club had a "fine time" at its annual election of officers on Dec. 31, the affair being held at Tom Lyon's garage on North Main street. The festive end took the form of a rabbit stew banquet. The new officers for 1910 are: Thomas Lyons, president; Charles Peene, vice-president; C. P. Rogers, captain; Joe Watson, lieutenant; Harry Cochrane, secretary and treasurer; L. Seeley, chaplain; E. J. Loud, chef; Ellis Nathan, stove polisher; Walter Schulmann, bugler.

TWO VEEDER NOVELTIES; OTHER TRADE JOTTINGS

TWO of the most interesting things shown at the Garden Show were on the Veeder stand, who also had on view the Veeder motorcycle trip cyclometer. The two novelties, though adapted for the motor car and not for motorcycle use, are so ingenious as to be worthy of mention. One is a sealed speedometer the key to which is known only to the driver of the car. This prevents joy-riding and assures the owner of any car that when it is used he is the only passenger. Many folks have long aimed to perfect a register of this sort but the Veeder people appear to be the first to succeed.

The other wrinkle is a speed gauge in which the speed of a car is registered by mercury in a tube. When this reaches a certain height, say 30, 40 or 50 miles, as may be decided upon before starting, a bell is rung. The idea of this device is to automatically inform the passenger of a car just how fast he is going. In an automobile, after passing the twenty-an-hour mark, the speed increase is imperceptible. The device mentioned does away with guesswork. It will be found very useful for folks who insist on their chauffeurs keeping down to a certain speed. If any of the readers of MOTORCYCLE ILLUSTRATED are interested in these two devices the Veeder Company, of Hartford, Conn., will be glad to tell about them.

* *

THE Wagner-Field Company, who have a high reputation as advertising experts in the motor field, have removed from the Thoroughfare Building across the way to the new Goodrich Building, at 1780 Broadway. Here they have a floor lighted on all sides and of great area. The new place has been arranged in a thoroughly up-to-date fashion for handling a large advertising business. The active head of the firm is Mr. Field, who has made a close study of motor publicity. With their increased facilities the Wagner-Field Company ought to greatly extend their business. At present they are specialists for the Ajax-Grieb Tire Company and one or two other exclusive motor concerns and are doing a fine business in a satisfactory way.

* *

THE Harley-Davidson Motor Company, who carry out a policy of constant expansion, have added the names of a number of new agents to their already large list. The additions are: Allentown Motorcycle Co., Allentown, Pa.; Thomas Christian, Nashville, Tenn.; Joseph Drouhard, Danville, Kansas; Des Moines Auto Co., Des Moines, Iowa; Appeal Manufacturing and Jobbing Co., Los Angeles, Cal.; E. D. Fitzpatrick, Memphis, Tenn.; J. S. Farlet, Milbank, S. D.; W. P. Glasgow, Tacoma, Wash.; J. B. Glaskin, Colorado Springs, Colo.

* *

THE Excelsior Supply Company have found that their Pacific Coast business has developed to such proportions that they have been compelled to open a branch house at 361-3 Golden Gate avenue, San Francisco. The new branch will be in charge of S. A. Skinner, a well-known Excelsior hustler, with Frank H. Sanford as his right hand man. The carrying of an entire stock of Excelsior machines and accessories at San Francisco will insure immediate shipment to all coast points and it will also be a great saving of expense.

* *

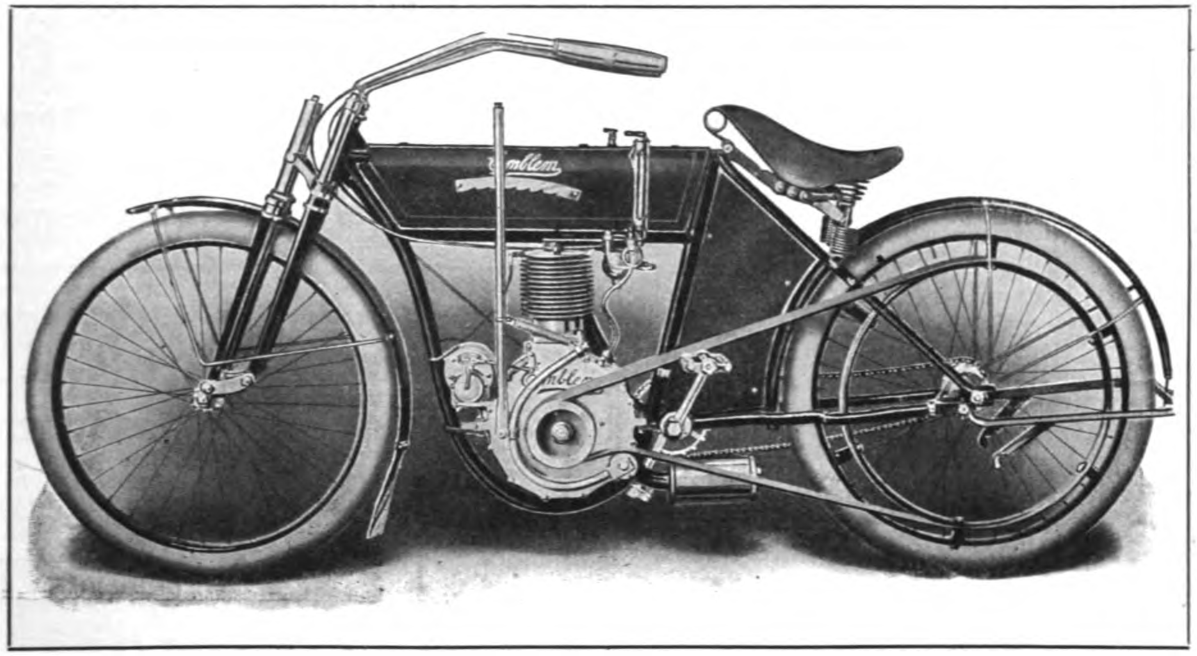
THE Emblem Manufacturing Company, of Angola, N. Y., the Marvel Motorcycle Company, of Hammondsport, N. Y., and the Miami Cycle & Manufacturing Company, of Middletown, O., have just been elected members of the Motorcycle Manufacturers' Association. The next meeting will be held Feb. 7 at the New Southern in Chicago. Secretary Remppis has been instructed to arrange for space in the 1911 shows at the first opportunity.

Class, Power, Speed and Satisfaction are the Appealing Features of the

1910 EMBLEM MOTORCYCLES

4 H. P. Single Cylinder, V and Flat Belt and Idler
5 H. P. Single Cylinder, V and Flat Belt and Idler
7 H. P. Twin Cylinder, V and Flat Belt and Idler

A TRIO OF WINNERS



Emblem Motorcycles will be fitted with the Eclipse free engine attachment when specified at $15.00 extra

An Agency proposition that means something. Catalogue free

EMBLEM MFG. CO., :: Angola (Erie Co.), N. Y.

ALSO MANUFACTURERS OF THE EMBLEM BICYCLE

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ALEXANDER-SEWALD CO., Atlanta, Ga., for the South
HENRY KEIDEL & CO., Balt., Md., for Va. & W. Va.

MOTORCYCLE ILLUSTRATED

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F. P. PRIAL

J. LEO SAUER - - - - - - - - - *Editor*
L. H. CORNISH - - - - - - - *Advertising*

HOW WE'RE GROWING

PRINTED COPIES

Jan.	1	3,250	July	1	4,100
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Feb.	1	3,750	Aug.	1	4,700
"	15	3,750	"	15	4,400
Mar.	1	3,750	Sept.	1	4,400
"	15	3,850	"	15	4,500
April	1	4,000	Oct.	1	4,600
"	15	4,000	"	15	5,100
May	1	4,100	Nov.	1	5,200
"	15	4,100	"	15	5,400
June	1	4,100	Dec.	1	5,400
"	15	4,200	"	15	5,700

1909 TOTAL: 104,350

THIS ISSUE: 5850 COPIES

"A VALUABLE MEDIUM"

The Motorcycle Publishing Co.:

It might interest you to know that the amount of enquiries and orders we receive from our advertisement in your paper is considerably larger than we ever received previously in answer to advertisements, showing, we should say, not only that your paper is a valuable medium for the advertiser, but also that there is a good business for the "Amac" Carbureter in the United States.

Yours faithfully,
THE ASTON MOTOR ACCESSORIES CO., LTD.

Birmingham, England, December 29, 1909.

SO SAY THEY ALL

TIGER CYCLE WORKS CO.
782 8th Ave., New York City

ROYAL PIONEER MOTORCYCLES

25 Second Hand Machines
(All Makes——All Prices)

And Everything for Motorcycles and Motorcyclists in the line of Supplies

Official F. A. M. Repair Shop
(TRY US—WE DEAL ON THE SQUARE)

McLAUGHLIN & ASHLEY
2384 BROADWAY, NEW YORK
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N. S. U. & MERKEL MOTORCYCLES
1910 MODELS READY FOR DELIVERY

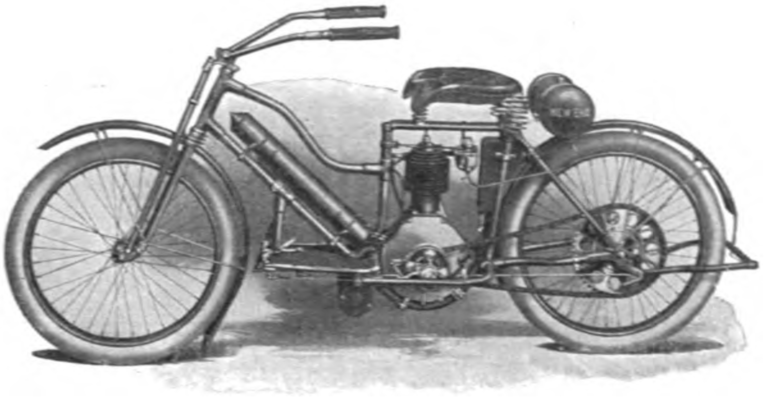
A COMPLETE LINE OF
SPALDING SPORTING GOODS
PARTS AND ACCESSORIES

EXPERT REPAIRING AT REASONABLE RATES
STORAGE

HAVE YOU NOTICED

How the Manufacturers of Motorcycles are tumbling over one another in their efforts to obtain Two Speed Gears and Free Motor devices? And do you know that it requires several years of experience to produce a practical and efficient two speed and free engine? If you don't you can easily make sure by buying a machine fitted with an untried two speed. But why pay so expensively for this knowledge when you can buy, as part of your

1910 New Era Auto-Cycle



Patent Pending

Two Speed Transmission and Free Motor, motor started by means of a crank, no pedals, comfortable, upholstered Form seat and foot board, excellence of design, beauty of workmanship, power and endurance. The machine for both country roads and crowded city streets.

LIVE AGENTS, HANDLE AN UP-TO-DATE AUTO-CYCLE. The Two Speed isn't Simply Coming—it's already here, and right Here, in the New Era Auto-Cycle. Others will follow in our footsteps, but, Mr. Dealer, Isn't it Better to Lead? If you think so, and if you are wise, that Is Your Opinion. You will write for an Advance Circular and our Agency Proposition.

The New Era Auto-Cycle Co., 22 Dale Avenue
Dayton, Ohio

R-S R-S

The TRIUMPHANT Motorcycles R-S

Will Be Exhibited

AT

CHICAGO AND BOSTON SHOWS

"They Will Talk for Themselves"

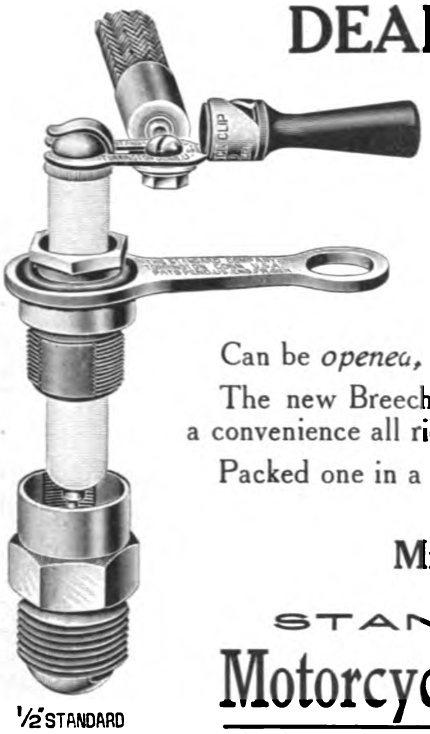
Reading Standard Co.

READING, PA.

R-S R-S

STANDARD-EQUIPMENT

FOR THE
MOTORCYCLE MANUFACTURER,
DEALER AND RIDER



The Breech Block Plug

A COMBINATION

SPARKER PRIMER COMPRESSION RELIEF

One sixth turn *opens* or *closes.* The push of a *finger* locks tight to 2,000 pounds.

Can be *opened, cleaned* and *closed* in *four seconds.*

The new Breech Block Clip with Insulated Handle prevents shocks and is a convenience all riders will appreciate.

Packed one in a box with new clip-screw-nut and directions.

PRICE

Mica, $1.25 Porcelain, $1.00

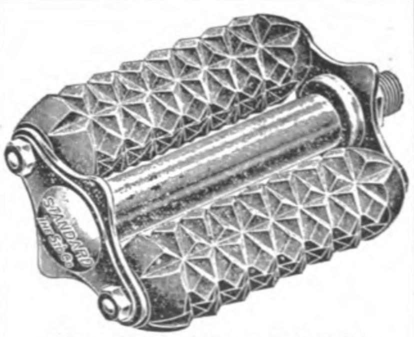
We recommend mica plug for motorcycle use

STANDARD

Motorcycle Pedals

Wide Tread Pedals combining *Comfort, Utility* and *Reliability.* Constructed of the *Best* materials by *Skilled Mechanics.*

PRICE, $3.00 PAIR



No. 3, Standard Motor Cycle Pedal

Emergency Axles, Sager Motorcycle Toe Clip, Diamond E <E> Spokes. Bridgeport, and Standard Pedals. Sager and Standard Toe Clips.

Send for our Descriptive Circulars

THE STANDARD COMPANY

Torrington, Conn., U. S. A.

Also Users Know

Diamond

Motorcycle Tires

Los Angeles, Cal., Dec. 10, 1909.

Diamond Rubber Co., Los Angeles, Cal.

Gentlemen:—I take pleasure in voluntarily telling you of the satisfaction I am having with the use of your new motorcycle tire. For some five months past I have used a "**Diamond**" tire on the rear wheel of my six horse power N. S. U. motorcycle, which, by the way, is one of the very heaviest and fastest touring machines made. During most of the entire time I have carried an extra person on tandem attachment over this tire. The distance so far is over 2,500 miles. The raised tread shows little wear, and it seems as though it might take double this mileage to even wear the tread smooth. It matters not how hard the tire is blown up; it has great resiliency and rides very easy. I have never had it lose traction or skid at any time. There have been no punctures, it being tough enough to apparently resist being punctured.

Comparing all my past experience of five years riding different makes of tires, I certainly can say that the new "**Diamond**" motorcycle tire is certainly a wonderful production, and greatly improves the pleasure of motorcycling.

Yours very truly,

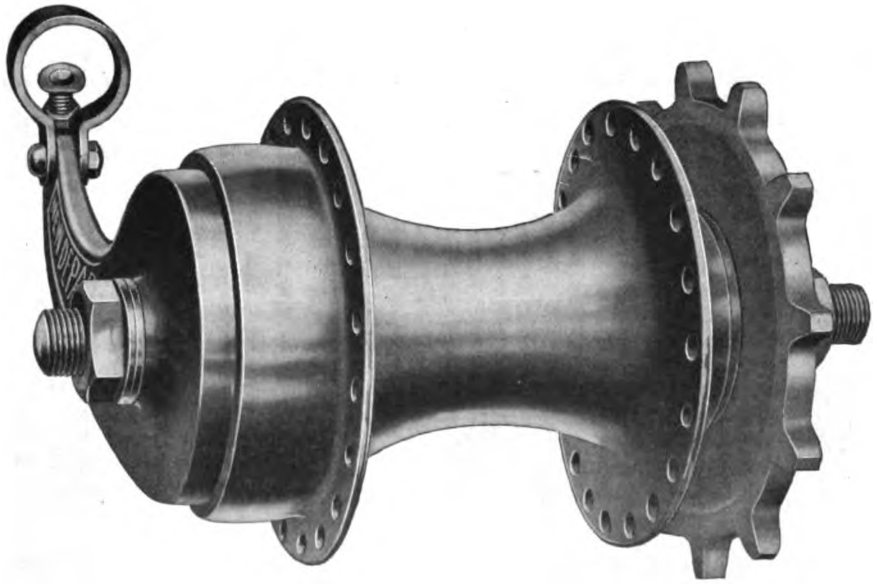
S. L. LYON.

The

Diamond Rubber Co.

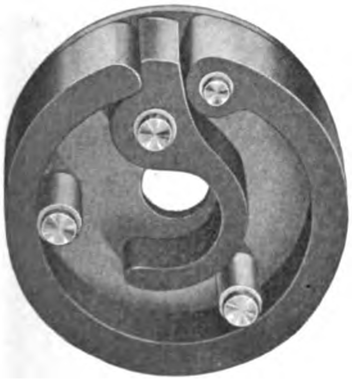
AKRON, OHIO

Diamond
Motor Cycle



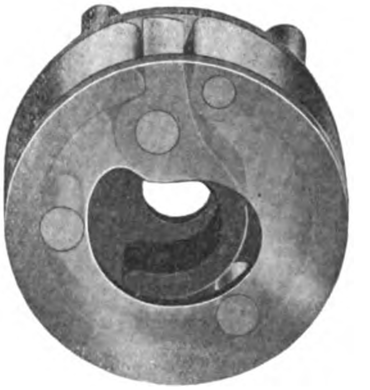
NEW NEW DEPARTURE

Internal Expanding Band Coaster Brake for Motorcycles is



Band Brake and Lever

POWERFUL
PRACTICAL
POSITIVE



Band Brake showing top plates holding parts in position—transparent view

The New Departure is the last word is coaster brakes for 1910 motorcycles. Radical improvements have been made, bringing it abreast of motorcycle advancement. It is dependable under all circumstances, strong enough to stall the highest powered motors; cannot bind, lock, "feed up" the pedals or cut into the hub. Every test proves claims made for it and every user declares its unfailing efficiency.

When asking your dealer about the "NEW" New Departure, do not fail to tell him you want to see the internal expanding band coaster brake.

Write for Folder

THE NEW DEPARTURE MFG. CO.

Coast Brake Licensors BRISTOL, CONN.

NOT AN EXPERIMENT BUT A PROVEN SUCCESS

THE

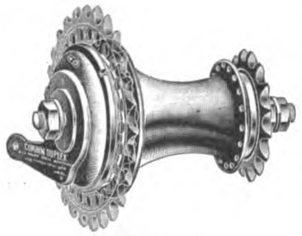
CORBIN

BAND BRAKE

For Belt or Chain Drive Motorcycles is Superior to All Others in

Principle, Strength and Reliability

C-O-R-B-I-N SPELLS BOTH QUALITY AND WORKMANSHIP


CORBIN DUPLEX

Model 9

AGENTS AND RIDERS— Handle and Use a Brake Whose Success Has Been Demonstrated by Thousands. Quotations on Request.

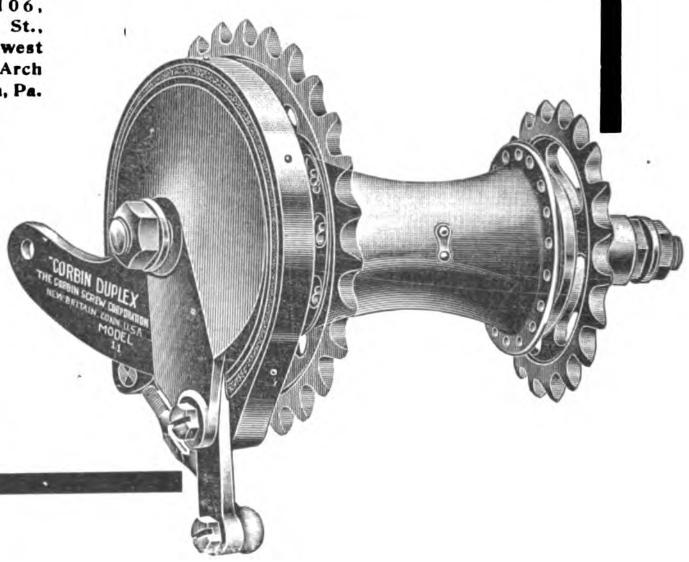
WAREHOUSES—106, 108, 110 Lafayette St., New York; Northwest Corner Eighth and Arch Streets, Philadelphia, Pa.

The CORBIN SCREW CORPORATION

Licensed Coaster Brake Manufacturers

NEW BRITAIN, CONN., U. S. A.

THE CORBIN SCREW CORPORATION
OF CHICAGO
107-109 Lake Street Chicago, Ill.


CORBIN DUPLEX
THE CORBIN SCREW CORPORATION
NEW BRITAIN CONN. U.S.A.
MODEL
11

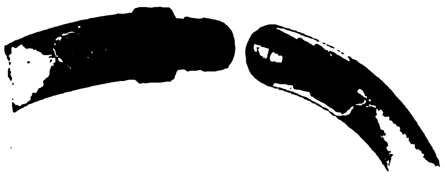
Empire Tires
WEAR LONGEST

CHECKERED TREAD TIRE

Empire molded motorcycle tires are extra heavy and extra strong. They are made to give proper service on the heavier and faster motorcycles now being generally made. The best quality of Sea Island fabric is used—closely woven, of the same type as used in automobile tire construction. High class rubber is used throughout, which will give great wear and withstand great abuse.

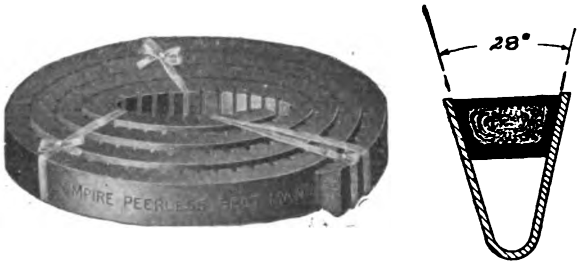
The Checkered Tread is the best non-skid tire ever offered for motorcyclists' use. It is very handsome in appearance. The rubber used in the tread is of a composition that gives the largest possible service. One of these tires ought to be on the rear of every motorcycle, the year around, as a guarantee against dangerous side slips.

EMPIRE MOTORCYCLE TUBES



Both the endless and the butt-end styles are furnished in two grades and weights of rubber. The Empire gray tubes are of the standard thickness and weight, and made from fine Para rubber. The Empire Peerless red tubes are put through a special process, which prevents deterioration. These are the best tubes that have ever been offered for motorcycle use.

EMPIRE PEERLESS V BELT



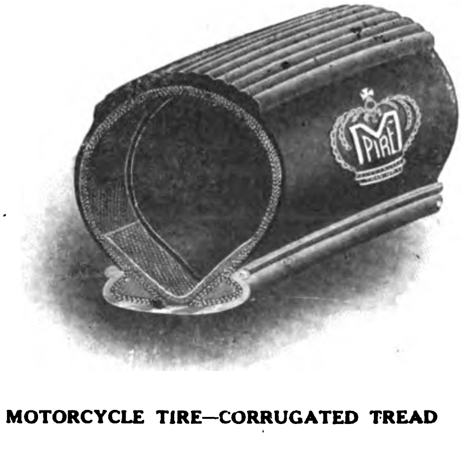
Strong, flexible, durable, non-stretchable. Made in four sizes for 28° pulleys only; length, 8 ft. 7 in. We solicit a trial order, and are confident you will pronounce it the best belt you have ever used.

EMPIRE TIRE PROTECTOR

This protector is invaluable in case of a blow-out. Many a blow-out is prevented by placing a protector over a tire that is on the point of developing a break in the fabric. The Empire Protector is strongly made, and has a heavy rubber tread. It will withstand a great amount of service.

CORRUGATED TREAD TIRE

This design will aid greatly in preventing side slipping, without detracting from the resilience or easy-riding quality of the tire in straight riding.



MOTORCYCLE TIRE—CORRUGATED TREAD

EMPIRE TIRE COMPANY

TRENTON, N. J.,
U. S. A.

BRANCHES AND AGENCIES EVERYWHERE

MOTORCYCLE MART: IT SELLS THE STUFF.

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word. No advertisement for less than fifty cents. Cash with order, always.

FOR SALE OR EXCHANGE

FOR SALE.—Ford Automobile, $175; or will exchange for motorcycle or Metz or Orient car. P. C. Walter, Viola, Wis.

FOR SALE.—1909 M. M. 3½ Magneto Special; not run 100 miles; buying twin; $160. Write Dan Brown, Deep River, Iowa.

FOR SALE.—1909 Battery-single Harley-Davidson. Excellent condition throughout; getting 1910 model; a real bargain. L. F. Bradburn, Canandaigua, N. Y.

TO TRADE.—New Remington pump gun, 12 ga.; never used, as part payment on serviceable second hand motorcycle, or will sell cheap. A. S. Wise, Centerville, Md.

FOR SALE.—New 1909 loop frame, 4 h. p., magneto Indian. Stella Sieber, Carthage, Mo.

FOR SALE.—New 1909 Twin Indian, chain drive, with magneto. C. E. Morrel, Lock Box 115, Carthage, Mo.

FOR SALE.—1910 Indian twin 5 h. p. Crated and never been opened, direct from factory. First check for $250 takes it. A chance to save $25 on your 1910. Subject to inspection. Will deliver same in February. This ad. will not appear again. Z., Motorcycle Illustrated, 299 Broadway, N. Y.

CHEAP AND GOOD.—Here they are, just what you have been looking for—five good motorcycles at prices that will interest you. 3½ h. p. R.-S., $95.00; R.-S. tandem, 3½ h. p., $135.00; 2 R.-S. 6 h. p. magneto twins, $175.00 each; Merkel, chain-driven, like new, $135.00. I will ship C. O. D. crated. John H. Hull, Mt. Hope, Pa.

FOR SALE—M. M., cheap; 2-in.—one tank, holding ½ gallon of oil and 2 gallons of gasoline; flat belt, free engine device; brand new tire on rear wheel; $75.00 takes it. George E. Sanders, Steubenville, O.

FOR SALE—M. M. sidecar, dirt cheap; used very little; good reason for selling; has 2½ inch tires. G. H. Neidengard, Steubenville, O.

FOR SALE—One twin 1909 5 h. p. Indian; loop frame; a bargain at $150. Chas. Grow, Oregon, Ill.

AGENTS CARDS, ETC.

DISCOVERED—The motorcyclists' best friend on a windy night. A positive stormproof lamp lighter, once used, never without; finest thing in the world for smokers; sent prepaid, 40 cents. Tiger Cycle Works Co., 782 Eighth avenue, New York City.

MOTORCYCLES thoroughly overhauled and repaired; agents for Thor and Excelsior motorcycles; supplies and sundries. Brazenor & Ruderman, 1041 Bedford avenue, Brooklyn, N. Y.

M-M and R-S MOTORCYCLES—East End Cycle Co., Highland & Beitler, near Centre avenue, Pittsburg, Pa.

SECOND-HAND M. M. BARGAINS—Exhaust Whistles, Hand Idlers. M. M. Branch, 895 Main street, Buffalo, N. Y.

FOR SALE.—Slightly used Bosch Magneto for Twin engine; Mabon clutch; Brown & Barlow, Amac and Longuemere carburetors; 1910 model motor frames and fittings; used side cars; 6 and 4 h. p. singles, good order; 4-speed pulley and free engine. Illinois Motorcycle & Accessories House, 1842 So. Kedzie avenue, Chicago, Ill.

FOR SALE.—Indians. "08" 3½ h. p. single and 5 h. p. twin; "09" 5 h. p. twin; Royal 3½ h. p.; Light, 2¾ h. p. Bargains. J. E. Schoolcraft, 1648 Lyon street, San Francisco, Cal.

FOR SALE—New 5 h. p. twin Indian, $200; second-hand 5 h. p. twins, $125 up; singles, $75 up. F. B. Widmayer Company, 2312 Broadway, New York City.

IF IT IS a second-hand machine you want, write to A. D. Cook, 111 Monroe avenue, Rochester, N. Y.; Curtiss Agency.

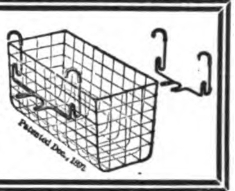
BARGAINS in accessories. Always on top. We have the largest stock and lowest prices in America. Write today for catalogue. Motorcycle Equipment Co., Hammondsport, N. Y.

MOTORCYCLE Accessories and Supplies at very lowest prices. Write us, stating your needs. General Supply Company, Box 263, Allentown, Pa.

IF YOU WANT A SPEEDY, ELASTIC, LASTING MOTORCYCLE BELT, "TESTED FOR EIGHT YEARS IN CALIFORNIA HILLS," GET A TWISTED, ROUND, SPECIAL TANNED; FITS LIKE A V BELT. THREE GRADES, $4, $5 AND $6. SEND CASH WITH ORDER. A. W. DUCK, OAKLAND, CALIFORNIA.

Dowe's Bicycle Luggage Carriers

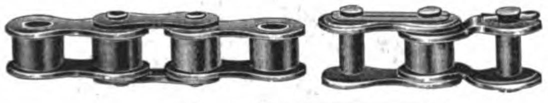
Best Thing for the purpose ever put on the market. In use all over the United States. ¶ Can put on or detach instantly with adjustable hook. ¶ Good sellers because the riders all want them and the price is popular. Write for Prices.



DOWE WIRE & IRON WORKS

Louisville, - - - Kentucky

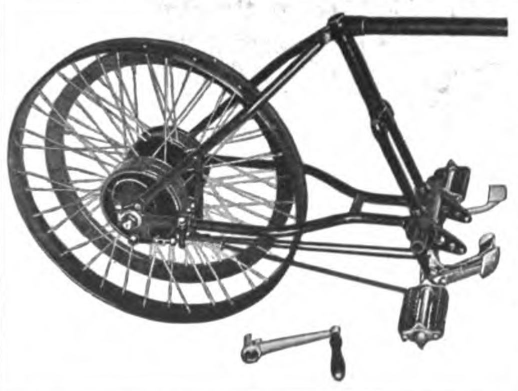
Duckworth Chains and Duckworth Connecting Links



Make a Strong Combination

Be Sure to Specify Duckworth.

Duckworth Chain & Mfg. Co., 40 Mill Street, Springfield, Mass.



BE A LEADER!

Two Seasons Hence, 75% of the Motorcycles in use will be fitted with a dependable TWO-SPEED AND FREE ENGINE GEAR. 75% of that 75% will be fitted with the

"K & R" TWO-SPEED HUBS.

ESTIMATE THE NUMBER OF MOTORCYCLES IN USE in your territory, then figure up and see if you think having our agency and selling our TWO-SPEED CONVERSION SETS won't be a profitable business.

Now send for our 1910 CATALOG and let us unravel our agents' proposition. Write right NOW.

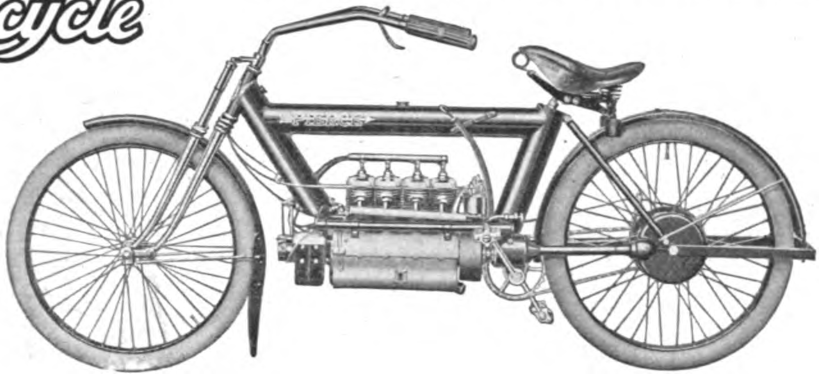
We illustrate Wehman Model Curtiss, fitted with our Conversion Set. Other illustrations will follow.

KELLER & RISQUE MOTOR CO., Bridge Square, St. Paul, Minn.

Kindly always mention the paper when writing to advertisers.

PIERCE Vibrationless Motorcycle

FREE ENGINE (Multiple Disc Clutch)
TWO SPEED (Selective Type)



FOUR CYLINDER

SHAFT DRIVE

Two Models---Four Cylinder and Single Cylinder

The four cylinder, because of its numerous points of superiority in design and construction, is the most advanced of any motorcycle on the market. In no other machine can the rider obtain as much value for his investment as in the Pierce 4 Cylinder.

THE PIERCE SINGLE CYLINDER HIGH-POWERED, SMOOTH-RUNNING AND STRONGLY BUILT

Bore and Stroke, 3½ x 4—Study these figures—they mean smooth running and great hill climbing efficiency.

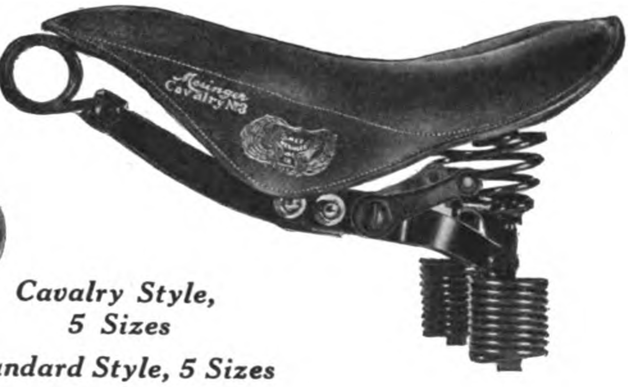
WRITE FOR DESCRIPTIVE CATALOGUE G

THE PIERCE CYCLE CO., Buffalo, N. Y. BRANCH AT OAKLAND, CAL.

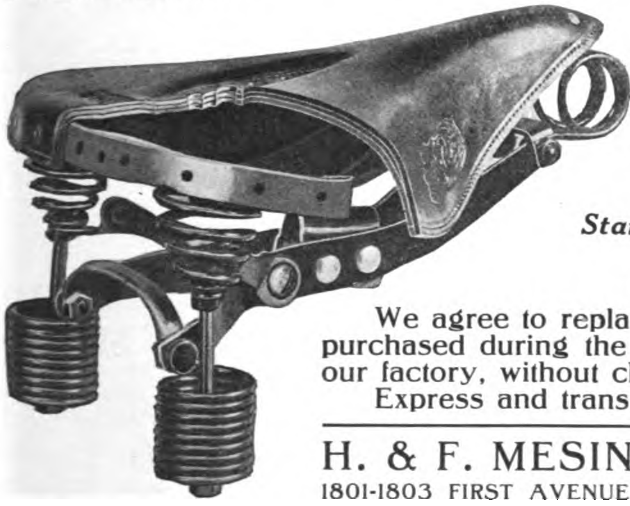
MESINGER MOTORCYCLE SADDLES

FITTED WITH SHOCK ABSORBERS PREVENTING SIDE-SWAY. CURLED HAIR PADDING. MADE ON THE STYLE OF A HORSEBACK SADDLE

Investigate carefully and you will buy the Saddle which gives you the most comfort. Be sure to have the right one to absorb the disagreeable jolts. Mesinger Saddles with fibre friction Shock Absorbers were well tested during 1909. They give a comfortable, pleasing Motion.



Cavalry Style, 5 Sizes



Standard Style, 5 Sizes

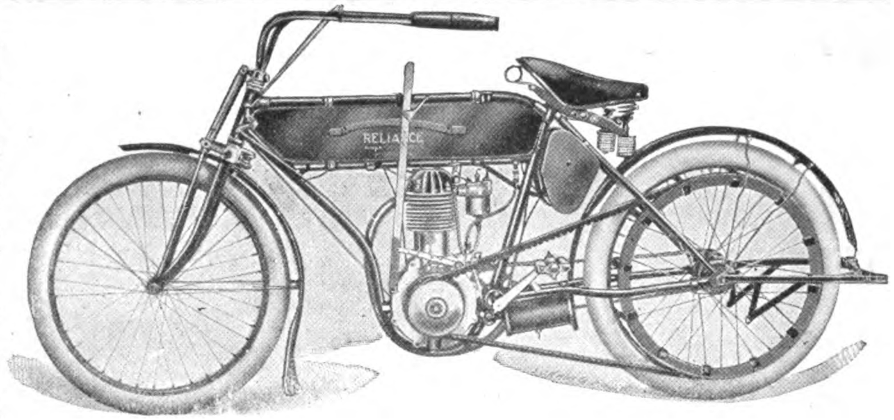
OUR GUARANTEE

We agree to replace all broken parts on all Mesinger Saddles purchased during the season, after defective part is delivered to our factory, without charge.

Express and transportation have to be paid by purchaser.

H. & F. MESINGER MANUFACTURING CO.
1801-1803 FIRST AVENUE : : : : : : NEW YORK CITY

Here Is What You Have Been Looking For



A motorcycle with a neat, compact two speed and free engine pulley, that is simplicity itself in construction, positive in its action, whether in high, low or free engine position. **THINK OF IT!** Start engine on stand **ANYWHERE**, on the steepest hill or deepest sand, and then by just pushing forward a lever **YOU ARE OFF.** 5 to 1 on high, 9 to 1 on low.

WE WILL EXHIBIT AT THE CHICAGO SHOW

Model C as above, complete with the two speed pulley, $225.
Write for complete specifications of this and our $4\frac{1}{2}$ H.P. Single and 7 H.P. Twin.

RELIANCE MOTORCYCLE CO., 444 Main St. Owego, N.Y., Tioga Co.
Member Motorcycle Manufacturers' Association.

THE NATIONAL SHOW

UNDER THE AUSPICES OF THE NATIONAL ASSOCIATION OF AUTOMOBILE MANUFACTURERS, INCORPORATED

At CHICAGO, February 5-12

All Makers in one Brilliant Display

In the Coliseum and First Regiment Armory

One Hundred Exhibits of Cars : First Opportunity to see the 1910 Motorcycles : Latest Products of Leading Accessory Makers

S. A. MILES, Manager, 7 East 42d Street, New York City
Dealers are invited to apply NOW for courtesies of the Exhibition

BOSCH FIRST—A SHOW REPORT

¶Of the Seventy-Nine Machines Exhibited at the New York Show, Forty-One Were Fitted with Bosch Magnetos. Most of the Remainder Had Battery Ignition. The Bosch Is Now So Far in the Lead that There Is Really No Second in the Race.

¶Also, the Proportion of Magneto to Battery Machines Has Increased Fully Thirty Per Cent. Above Last Year's Ratio, and Practically the Entire Gain Is in Bosch Magnetos. You Know Why.

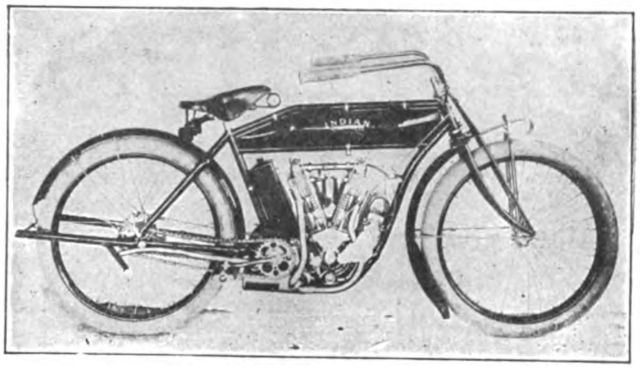
BOSCH MAGNETO COMPANY

223-225 WEST 46th STREET, NEW YORK

Chicago Branch: 1253 Michigan Avenue
San Francisco Branch: 357 Van Ness Avenue

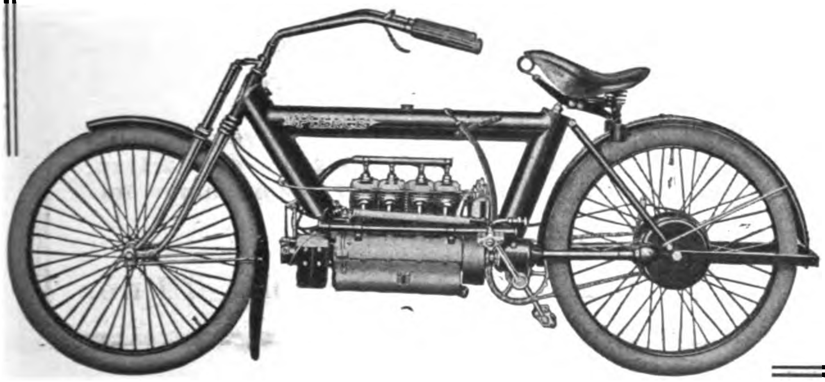
FULL LINE OF SUPPLIES

Complete Stock of Indian Parts
Get our Catalogue



Greater New York Distributors for the

INDIAN AND PIERCE



We have absolutely everything a motorcyclist needs or wants

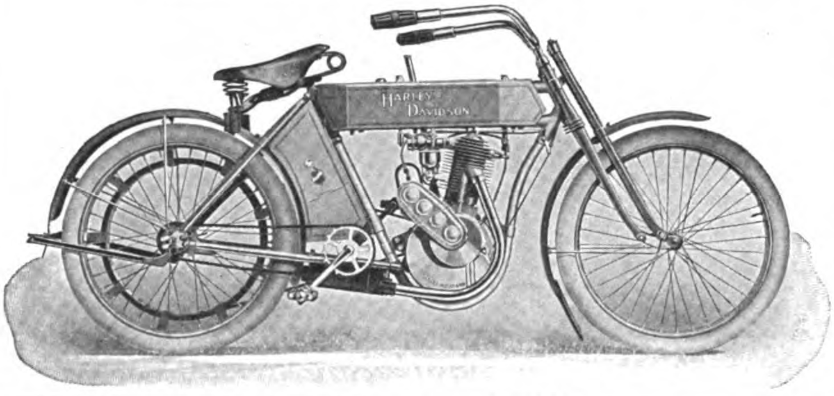
F. A. BAKER & CO.

37 Warren Street
NEW YORK CITY

WHAT HARLEY DAVIDSON'S HAVE DONE ON THE ROAD

and track is worth talking about, but our 1910 Models are so much better that we are looking into the future, not the past. The Harley-Davidson Machines are

RECOGNIZED AS STANDARD



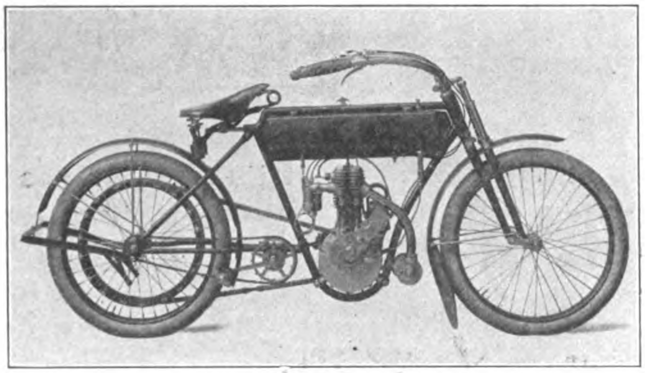
The 1910 HARLEY-DAVIDSON is just as far ahead as ever, and embodies more points of **real merit** than any other motorcycle on earth.

You want proofs of course—we have them. Send for our Catalogue. Look into our Agency Proposition.

HARLEY-DAVIDSON MOTOR CO.
MILWAUKEE, WIS.

The THIEM | **1910 MODEL "E"**

4 H.P. 3¼ x 3½ Ball Bearing Motor



Many new and unique improvements. Model "E" represents a substantial advance in the Motorcycle Art. The evolution through which we have passed has emphasized features and improvements that are now embodied in our Model "E" that easily makes it the most improved Motorcycle made anywhere.

The Improvements are: Full Ball Bearing, Mechanically Operated Valves, Precision Oiler in addition to Pump in Tank, Magneto gear driven, special Spring Fork, Low saddle position, means for adjusting the Belt, and many minor improvements.

AGENTS WANTED EVERYWHERE.

THIEM MANF'G CO., Box 498, Minneapolis, Minn.

The Goodrich
Motorcycle "Tourist Grip"

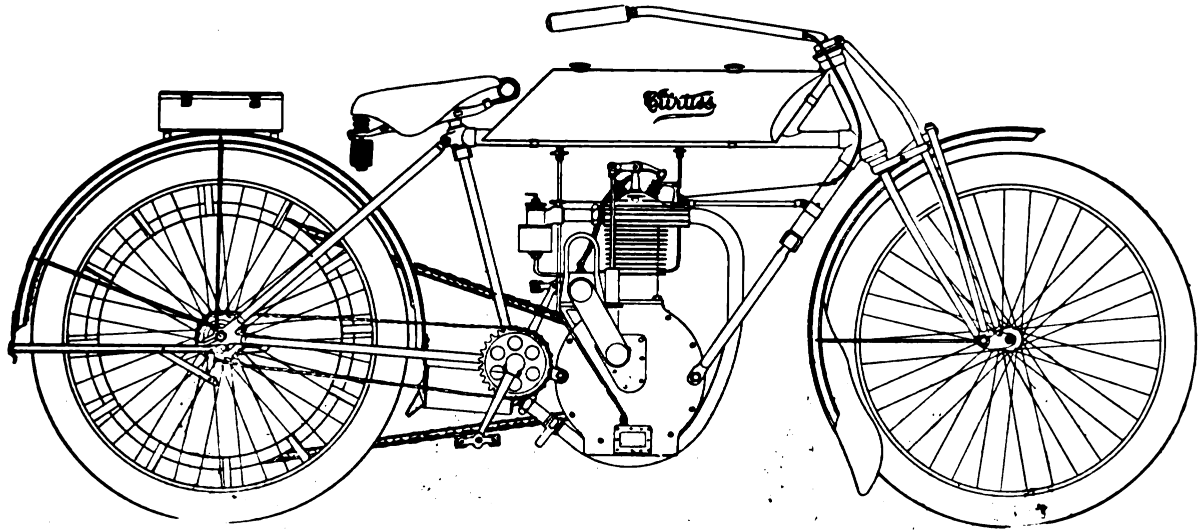
THE CORRUGATIONS are well shaped to make a reliable gripping surface. They are large and strong and do not wear down easily.

THE FLARED ENDS keep the hands from slipping off, so that the rider can sit up comfortably.

THE MOST DISTINCTIVE FEATURE is the fabric reinforcement in the curve, at the end of the handle bar. This prevents breaking or splitting at that point, and gives the grip longer life.

The standard size fits a one inch handle bar. The length of the grip is eight inches and it sells at $1.50 the pair.

THE B. F. GOODRICH COMPANY, - Akron, Ohio



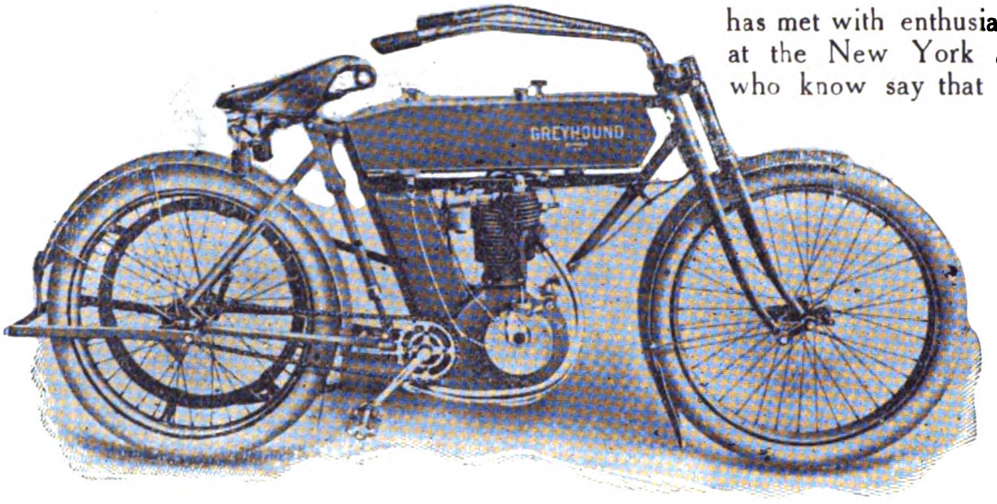
The Greatest Roadsters on Earth

1910 CURTISS—4 H. SINGLE, 8 to 9 H. TWIN

The Reasons Why: Big, powerful, smooth running engines that never falter. A frame and equipment that is unsurpassed for neatness and strength. Mechanically operated valve in-the-head motors. Large diameter fly-wheels. Off-set cylinder. New "constant level" oiling system. 1⅛ inch belt. Persons Tool Bag.

THE HERRING-CURTISS CO., Hammondsport, N. Y.
Member M. M. A.

THE SPLENDID GREYHOUND



has met with enthusiastic appreciation at the New York Show and those who know say that our fine ***Comfort Equipment,*** on top of the obvious high character of the machine, is bound to put the Greyhound to the fore.

Trade arrangements are closing all the time and delivery dates call for attention now.

Let Us Hear From You

GREYHOUND MOTOR WORKS

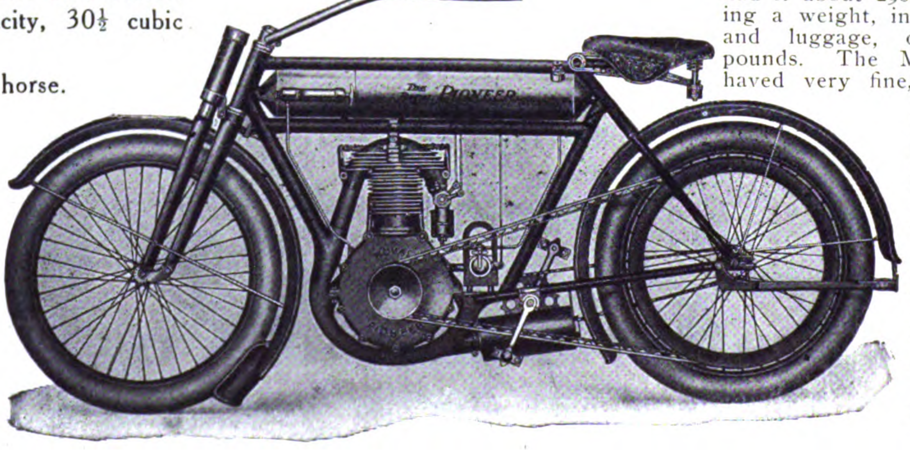
Member Motorcycle Manufacturers' Association

1459 Niagara St., Buffalo, N. Y.

SELLING AGENTS: Metropolitan District—THE BROWN-DEWEY CO., 1697 Broadway (53d St.), New York.
Chicago District—WHIPPLE, "The Motorcycle Man," 9[illegible]8 W. Jackson Boulevard, Chicago.

The PIONEER 1910

REFINED AND STANDARDIZED



Mechanically operated Valves in head over piston; no side parts. One cam operates both valves. Cylinder Capacity, 30½ cubic inches. Power, 4—4½ horse. Hess-Bright Automobile Ball-bearings in Motor. Two tanks, round, brass, plated, double torpedo. Side feed force pump. Bosch Magneto. Adjustable crank hanger; Wata-Wata belt; Compound Cushion Fork with Rebound Check Spring.

The above constitutes such a group of valuable features as is found in no other machine on earth, yet the story is not half told.

A New TESTIMONIAL in Each Advertisement

Philadelphia, Pa.

Gentlemen:—I have been on a five weeks' tour on my Royal Pioneer and have just come back. Altogether I have ridden the machine since I have had it about 2900 miles, carrying a weight, including myself and luggage, of about 200 pounds. The Motor has behaved very fine, never giving me any trouble at all. Have never had a puncture in my Goodrich Tires and I can recommend the Pioneer to any one desiring a good Motorcycle.

Respectfully yours,

H. A.

WRITE FOR LATEST CATALOGUE

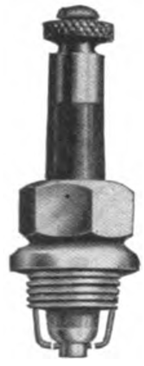
Royal Motor Works, Inc.

WORCESTER, MASS.

1910 PITTSFIELD 1910

SPARK COILS, SPARK PLUGS, SWITCHES, TIMERS AND DISTRIBUTERS AND MAGNETOS

MADE IN AMERICA ***HAVE NO SUPERIOR IN THE MARKET***



Magneto Spark Plug

The following testimonial was recently received by the Pittsfield Spark Coil Co., unsolicited.

"Columbus, Ohio, Oct. 11th, 1909.

"PITTSFIELD SPARK COIL CO.,
"Dalton, Mass.

"Gentlemen:—

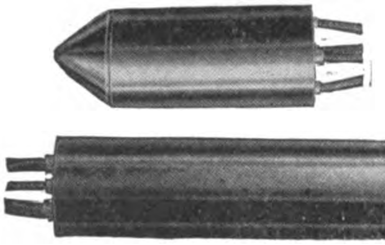
"I think you will be interested to know I am using the best coil **"PITTSFIELD,"** on my run from San Francisco to New Orleans and New York.

"I have covered 5,763 miles, 2,022 on railroad cross ties, and have had a terrible trip. Have been out thirty-seven days and had no ignition trouble. Your coil has stood unreasonable endurance, exposed to water, heat and cold in many States.

"I am an old-time rider and one who knows a good thing.

"Yours truly.
(Signed) "H. F. MERIWEATHER."

A Line of Pittsfield Goods is carried by H. V. Greenwood, 166 Lake Street, Chicago

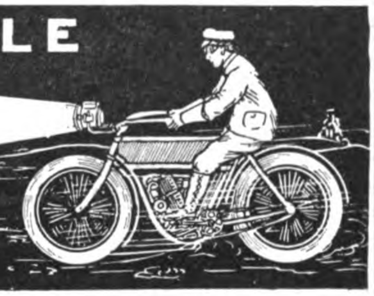


Write today for particulars, catalogues, price lists and instructions.

PITTSFIELD SPARK COIL CO., Flansbury Ave., Dalton, Mass.

Sales Representatives: New England, W. J. Connell, 36 Columbus Avenue, Boston. **Atlantic States,** Thomas J. Wetzel, 17 West 42nd Street, New York. **Central States,** K. Franklin Peterson, H. V. Greenwood, 166 Lake Street, Chicago **Michigan.** L. D. Bolton, 319 Hammond Building, Detroit. **Pacific Coast,** The Laugenour Co., San Francisco.

THE 20th Century MOTORCYCLE HEAD and SEARCHLIGHTS



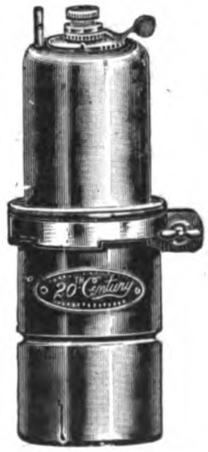
THE LAMPS FOR 1910

Sold by All Representative DEALERS and JOBBERS

SEND FOR CATALOGUE

THERE'S QUALITY IN THE 20th CENTURY LAMPS

¶ BUILT LIKE AN AUTOMOBILE LAMP. TWO STYLES OF SUPPORT. SIDE BRACKETS OR BACK GENERATOR HOLDS 10 OUNCES OF CARBIDE IN SIFTING BASKET. NEEDLE POINT VALVE CONDUCTS WATER TO BOTTOM OF CARBIDE.



Generator
No. 10

20th Century Mf'g Co. 19 WARREN STREET
NEW YORK CITY

The Neverout

TRADE MARK

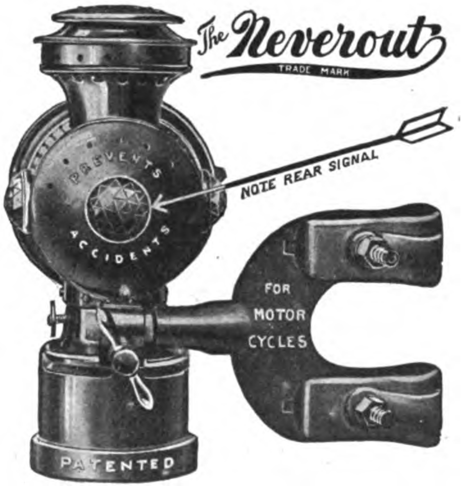
MOTORCYCLE OIL LAMP

SHOWING A RED REAR LIGHT

¶ **The Neverout burns kerosene ten hours with one filling, and will stay lighted under any and all conditions. ¶ All riveted—will not rattle apart over roughest roads.**

¶ **Made in gun metal, brass or nickel finish**

AN OIL LAMP THAT MAKES MORE LIGHT THAN MOST GAS LAMPS



Lamp Weighs Only 12½ Ounces

GUARANTEED TO STAY LIGHTED OR MONEY REFUNDED

¶ **The Neverout is equipped with a PATENT GLASS COVERED REFLECTOR OF GERMAN SILVER, instantly removable, never loses its original brilliancy.**

¶ **The only perfect and reliable motorcycle lamp made.**

¶ **Double clamp bracket furnished, fastens lamp securely to fork of motorcycle. No danger of shaking off, and SHOWS RED REAR DANGER SIGNAL.**

Sold by leading jobbers and dealers everywhere

ROSE MANUFACTURING COMPANY

933 ARCH STREET, PHILADELPHIA, U. S. A.

The Neverout complies with the laws of the various States and Municipalities

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Two Good and Sufficient Reasons for Specifying

MORGAN & WRIGHT

WHITE TREAD

MOTORCYCLE TIRES

On Your Machines For the Coming Year

1st—We will use in their construction a new tough, white, resilient cover stock with wearing qualities which have never before been approached in motorcycle tire construction anywhere or at any price.

2d—*We will use lots of it.* Our treads will be fully 50% thicker than last year, giving a proportionate increase in puncture resistance and length of service.

Any manufacturer will be glad to equip them. It will mean *money in your pocket* if you instruct *yours* to do so.

MORGAN & WRIGHT

DETROIT

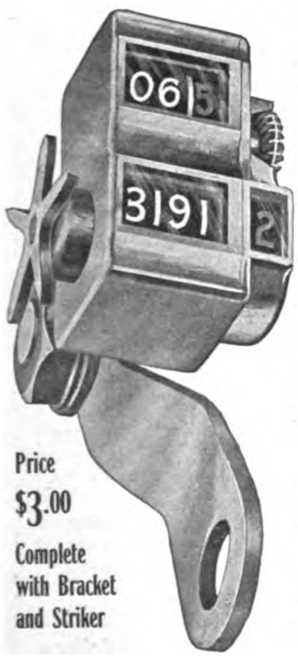
Isn't it easier

to glide along the road with a real spring under you than to thump along on a rigid frame? That's the difference between riding

THE FLYING MERKEL

with its spring frame and fork—and——??? the other kind. A little territory still open for agents. Get the catalog.

MERKEL-LIGHT MOTOR CO.
Pottstown, - Pa.



Price
$3.00
Complete with Bracket and Striker

Veeder
Motorcycle Trip Cyclometer

Made heavy and durable for the hard usage it receives on the Motorcycle.

Adjustable Bracket fits all makes of machines.

Large and strong striker.

Made for 24 in., 26 in. and 28 in. wheels.

The Veeder Mfg. Co.
42 Sargeant St., Hartford, Conn.

Makers of Cyclometers, Odometers, Counters, Tachometers, Tachodometers and Die Castings

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A SWEEPING VICTORY

All GOOD Makes of Motorcycles Ignite with the Famous Germany Made

HERZ-MAGNETO

Such Revolution in Motorcycle Ignition has never before been witnessed.

Every mail brings letters like these:

Chicago, Ill., Jan. 4, 1910.

I have one of your Herz-Magnetos, and consider it the BEST MADE. My machine will run ***just as slow as a battery machine*** and ***is a lot more reliable.***

[Signed] ELMER W. RIETZ,
540 Aldine Ave., Chicago, Ill.

Augusta, Ga., Dec. 29, 1909.

I am a rider of a "Flying Merkel" equipped with your Herz-Magneto. Magneto thoroughly satisfactory and a genuine pleasure to me.

[Signed] T. J. TARVER,
310 Ellis St., Augusta, Ga.

INSIST UPON A HERZ-MAGNETO ON YOUR MOTORCYCLE

It's the BIG, FAT ARC FLAME of the "Herz" you want,
and not the thin, faded spark of the others.

Equipment on

Excelsior
Pierce
Thor
Yale
Harley-Davidson
Greyhound
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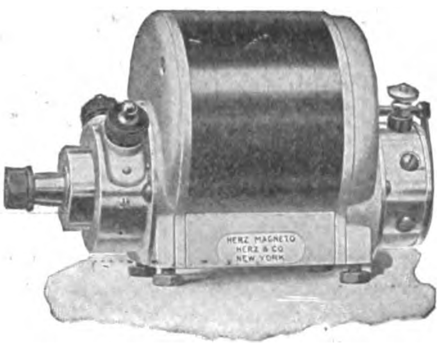

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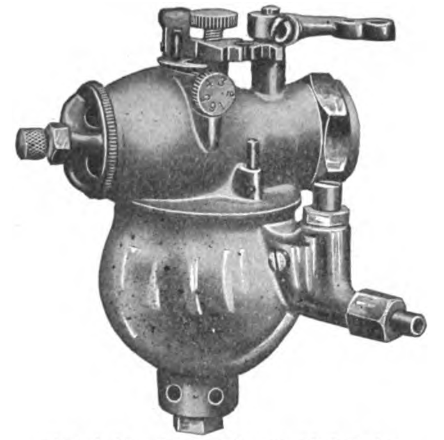

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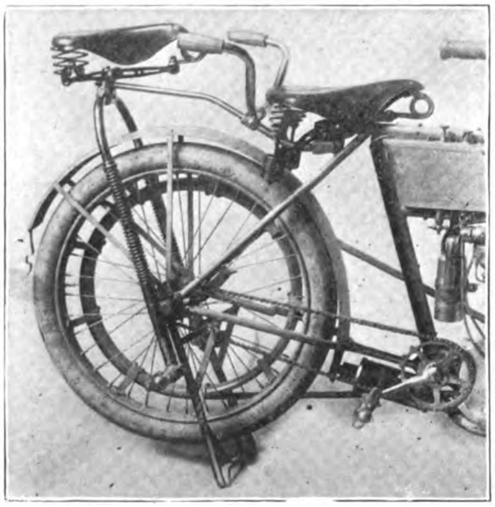

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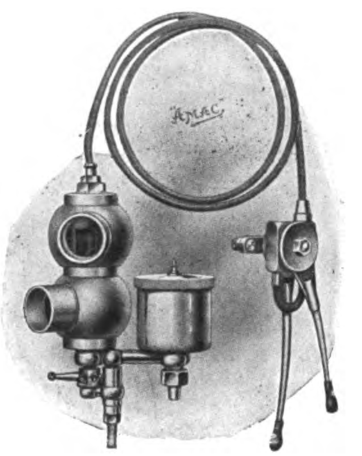

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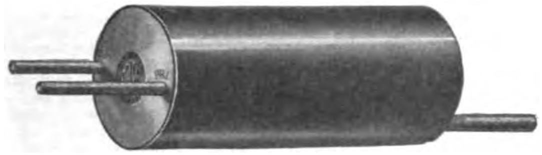

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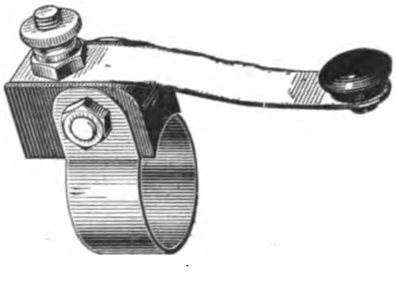

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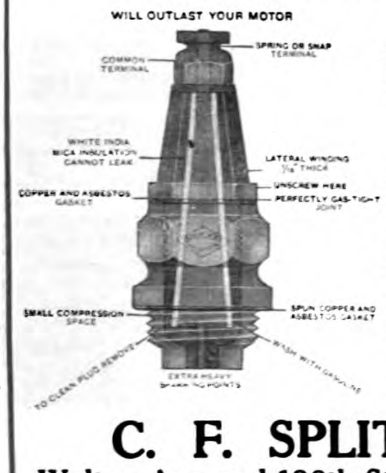
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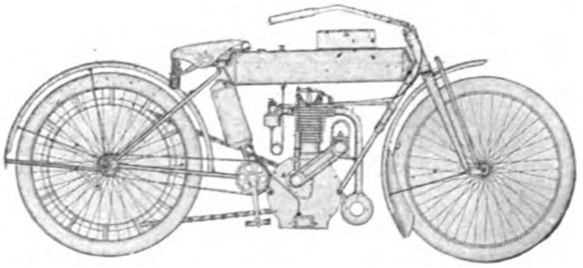

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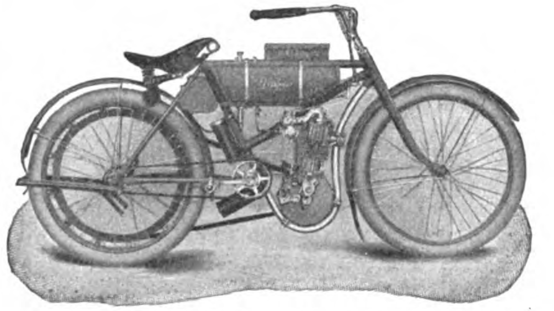

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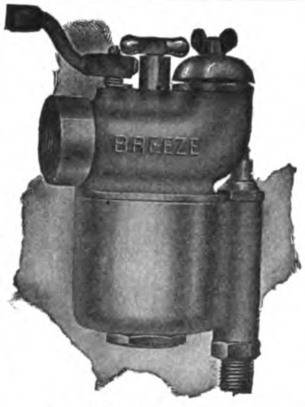

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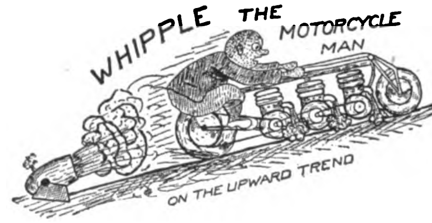

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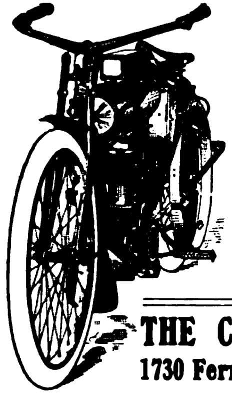

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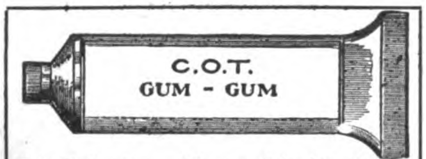

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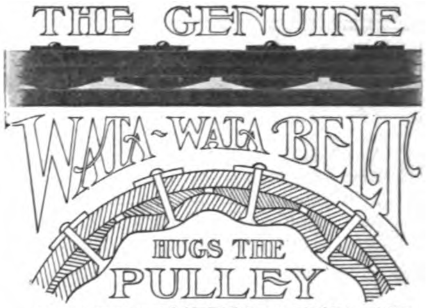

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MOTORCYCLE ILLUSTRATED
Vol. V. No. 3. February 1, 1910
PUBLISHED BY THE MOTORCYCLE PUBLISHING CO., 299 BROADWAY, NEW YORK CITY.

CHICAGO SHOW PROMISES GREAT RESULTS

The Trade Looks Forward With Eager Anticipation to Motor Exposition in the Live Metropolis of the Wonderful Middle West.

WESTWARD, though anything but wearily, the trade is now wending its way. Its objective is, of course, the Chicago Show, which opens Saturday, Feb. 5, and will continue until the following Saturday, the 12th inst. Applications for space in the Coliseum, its annex and the big armory have simply overwhelmed Manager Miles and his assistants, with the result that the makers of motorcycles will not be as extensively represented as they were at the New York Show. In Gotham last month, at the Garden, nineteen motorcycle manufacturers were represented; there will be thirteen at the Chicago Show, the reduction in the number of exhibitors being due simply to the failure of some of them to get their applications in on time, and not because of the deliberate intent of any one of them to slight the big Chicago affair. On the contrary, the Chicago Show is now established on a par with the one in New York. It is especially popular in the eyes of motorcycle builders, and those who have been unable to obtain space regret the fact very much. However, many of the leading makers who have been unable to get into the Show proper will have suitable exhibits in the immediate neighborhood, and there is every indication that the display of motorcycles at Chicago will be a very impressive one.

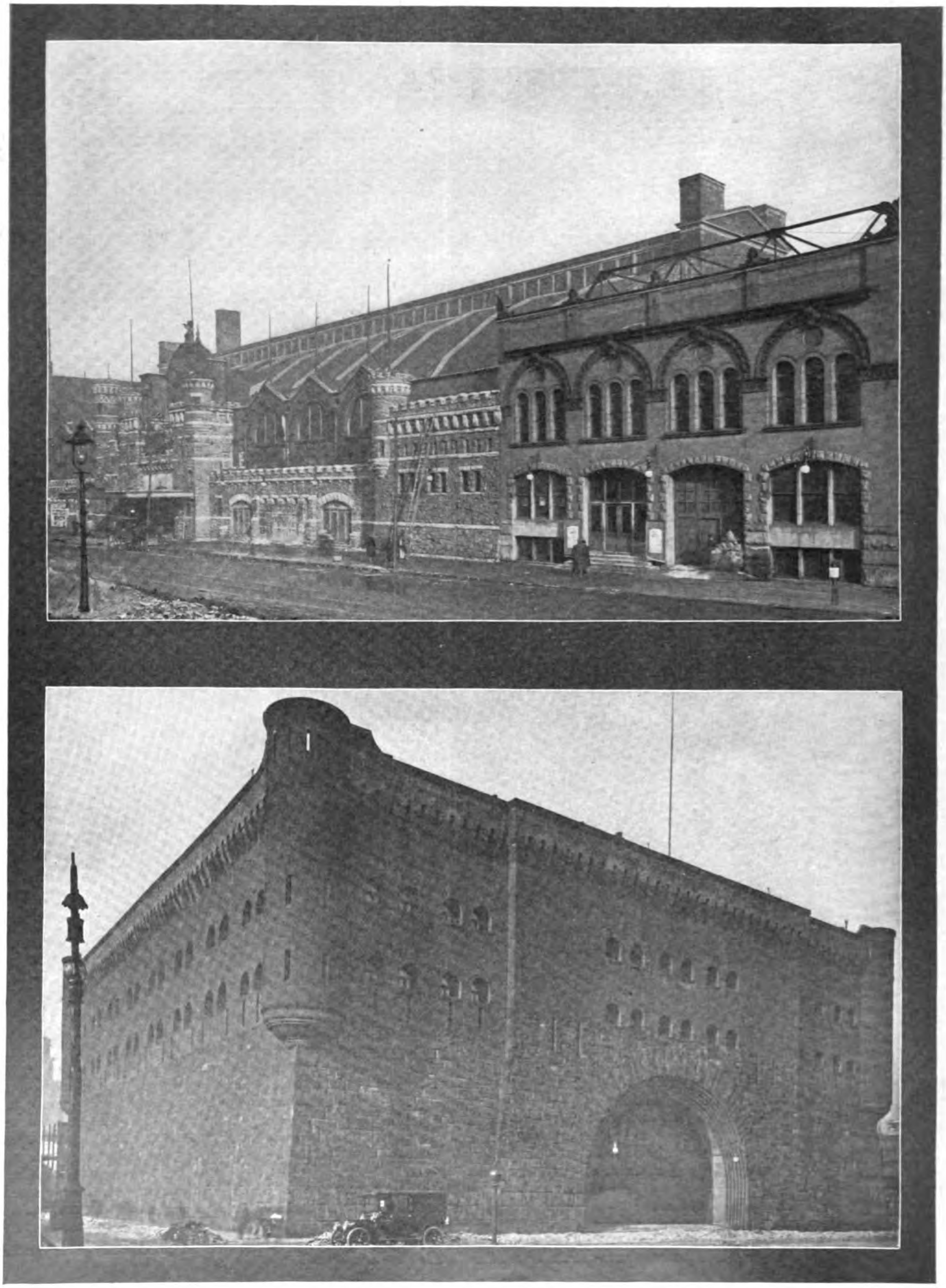
There will be at Chicago no exhibits by firms which did not also show at Madison Square Garden. The Chicago list of exhibitors comprises the N. S. U. Motor Company, which has just obtained space; the Aurora Automatic Machinery Company, American Motor Company, Consolidated Manufacturing Company, Excelsior Supply Company, Greyhound Motor Works, Harley-Davidson Motor Company, Hendee Manufacturing Company, Merkel-Light Motor Company, New Era Autocycle Company, Pierce Cycle Company, Reading Standard Company and the Reliance Motorcycle Company. Special exhibits will be made in the vicinity by the Emblem Manufacturing Company, Wagner Motorcycle Company, Hornecker Motor Manufacturing Company, and in all probability a number of others.

The trade and others in Chicago are warming up to the Show, to which they look forward with eager anticipation. It is now generally conceded that the manufacturers will do more actual business at the Chicago Show than they did in New York. The experience of most of them has been that motorcycle enthusiasm is growing faster in the West than elsewhere, and those who look to Chicago instead of New York as their center of population are naturally proud of the position which the metropolis of the Middle West occupies in the motorcycle field.

One of the features of interest to the gathering of motor enthusiasts at Chicago will be the special F. A. M. meeting which is to take place at 1436 Michigan avenue at ten o'clock Thursday morning, the 10th inst., at which time action will be taken on the recently drafted new constitution, which in its amended form has been approved by the Eastern members of the special committee appointed by President Willis of the F. A. M. Incidentally, the Chicago Club is making arrangements to hold a smoker the same night, in the same hall where the F. A. M. meeting will be held. Those in charge of this affair hope to make it one of the most elaborate and altogether most enjoyable of its kind ever conducted by the organization.

The Chicago Club, by the way, is now in a very flourishing condition. Its membership total has reached 400, there is a goodly sum of money in the club treasury and the officers of the club are a live combination with much executive ability. Roy E. Buell is president, and the other officers are as follows: Vice-president, George Carrington; secretary, R. Marshall; treasurer, R. Olsen; financial secretary, D. N. Hendrickson; captain, William Walsh; directors, Messrs. Allard, Yates and Van Sickle. It was through the untiring efforts of these men and the support of other members of the club and the local trade that the $10 wheel tax ordinance was repealed and a substitute, which makes the annual toll only $3, was enacted by the Chicago Common Council.

All the leading manufacturers have models of their 1910 machines on exhibition at the local agencies. Their free engine and two-speed devices, mechanical oilers, spring forks and numerous other improvements, described in this paper, have already added wonderfully to the popularity of the sport in and about Chicago. The factories in the city and its immediate environs have without exception increased their working forces, some of which are busy night and day in order to meet the rapidly growing demand for motor-driven two-wheelers. Even the most conservative men in and out of the trade are predicting that 1910 will be the biggest year in the history of the sport. The East has fully awakened to the popularity of the little two-wheeler; enthusiasm on the Pacific Coast is more intense than ever, while the conditions in the Middle West are almost everywhere such as to encourage the makers to turn out as many machines as their factory facilities will permit. The Good Roads movement has taken strong hold in the West and there is no denying that improved road conditions will serve to increase the number of riders many thousands above the 1909 quota in the Middle States and, in fact, in practically every other part of the country.



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19	Wheeler & Schebler	Indianapolis, Ind.
23	Whitney Mfg. Co.	Hartford, Conn.
29	Standard Welding Co.	Cleveland, O.
30-31	Hartford Rubber Works Co.	Hartford, Conn.
38-39	Fiske Rubber Co.	Chicopee Falls, Mass.
41	A. W. Harris Oil Co.	Providence, R. I.
44-45	G & J Tire Co.	Indianapolis, Ind.
47-48	B. F. Goodrich Co.	Akron, O.
51-52	Goodyear Tire & Rubber Co.	Akron, O.
62	Pennsylvania Rubber Co.	Jeannette, Pa.
65	Remy Electric Co.	Anderson, Ind.
76	Byrne-Kingston Co.	Kokomo, Ind.
34-35	Diamond Rubber Co.	Akron, O.
40	Badger Brass Mfg. Co.	Kenosha, Wis.
42	Veeder Mfg. Co.	Hartford, Conn.
46	National Carbon Co.	Cleveland, O.
49	C. F. Splitdorf	New York
56	R. E. Hardy Co.	Chicago, Ill.
64	Baldwin Chain & Mfg. Co.	Worcester, Mass.
70	Never-Miss Spark Plug Co.	Lansing, Mich.

CHICAGO COUNCIL REDUCES WHEEL TAX FROM $10 TO $3.

THANKS to the efforts of the officers and members of the Chicago Club and the enthusiastic support of the trade, the recently enacted ordinance has been amended by the Chicago City Council, so that instead of $10 the license fee will be $3 per annum.

While those interested in the movement to obtain a square deal for the riders are highly pleased with the result of their endeavors to have the licence fee reduced, they are not yet entirely satisfied and will make still further efforts if there appears to be any possible chance of securing other concessions. In addition to making the yearly toll $3, the new ordinance makes the following provisions:

"All licenses shall expire on the thirtieth day of April following the date of issue, and when issued for a period of less than one year the fee to be paid for the unexpired license shall be the proportionate part of the annual rate fixed by the ordinance, but no fee shall be less than one-fourth of the annual rate. All revenue derived from such license fees shall be kept as a separate fund and used for paying the cost and expenses of street or alley improvement or repair.

"Provided, further, that it shall be the duty of the applicant for a license to use a motor bicycle or motor tricycle upon the streets, alleys or avenues of the city to affix such plate on the rear mud guard of such a vehicle in such position that the numbers thereon may be clearly visible from the rear, and it shall be the duty of the applicant or person in charge and control of such vehicle, when the same is in use upon the streets, alleys or avenues of the city, to keep such metal plate clean and free from mud, dirt or other substance.

"It shall be unlawful for any person in charge or control of any motor bicycle or tricycle to use such vehicle on the streets, alleys or public places of the city unless such vehicle be provided with good and sufficient brakes and muffler, and also with a suitable bell, horn or other signal device. No part of the machinery of any motor bicycle or tricycle shall be left running while such vehicle is left standing, without an attendant on the streets, alleys or public places, nor shall the muffler of such vehicle be open or cut out while such vehicle is in use upon the streets, alleys or public places of the city.

"The following rates of speed may be maintained but shall not be exceeded upon any street, alley or public place in the city by anyone driving a motor bicycle or tricycle: A speed of one mile in ten minutes when turning a corner or intersecting streets, and a speed of one mile in four minutes where any street passes through the residence portion of the city. A speed of one mile in six minutes where such street passes through closely built portions of the city. Elsewhere, and except as otherwise provided, a speed of one mile in three minutes; provided, however, that nothing in this section shall permit any person to drive such motor vehicle at a speed greater than is reasonable, having regard to the traffic and use of the streets, or so as to endanger the life or limb or injure the property of any person.

"Whenever it shall appear that any horse driven or ridden by any person upon the streets, alleys or public places of the city is about to become frightened by the approach of any vehicle, it shall be the duty of the person driving or conducting such vehicle to cause the same to come to a full stop until such horse or horses shall have passed.

"Any person violating any of the provisions of this ordinance shall be fined not more than $200 for each offense." The ordinance is now in effect.

W. C. OVERMAN, of the Greyhound Motor Works, Buffalo, N. Y., will be in charge of the Greyhound exhibit at the Chicago Show, as he was at New York. As vice-president and sales manager of the Greyhound concern he believes in getting in as close touch as possible with both the trade and the riding public.

OWING to their inability to obtain space in the Coliseum, the Chicago exhibit of the Wagner Motorcycle Company will be shown at the headquarters of the company's Chicago agency, 1610 Michigan avenue, right in the heart of the motor sales district. The Wagner folks will welcome there all who may be interested.

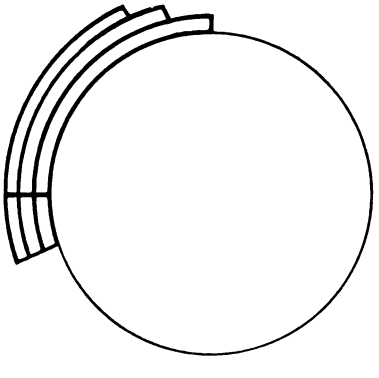


FIG. 1: SHOWING HOW 3 PLIES WOULD LIE AROUND SMALL PULLEY IF NOT RIVETTED OR CEMENTED TOGETHER.

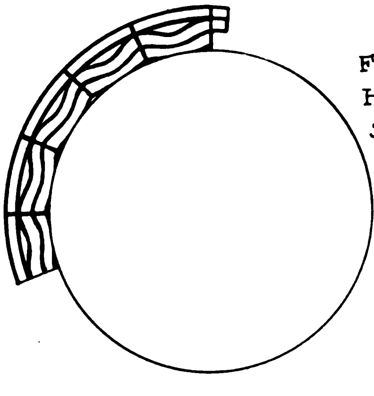


FIG. 2: SHOWING HOW A 3 PLY SOLID BELT, CEMENTED AND RIVETTED, BUCKLES UP ROUND SMALL PULLEY.

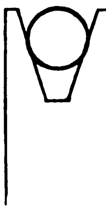


FIG. 3: SHOWING POOR CONTACT AREA OF ROUND BELT IN V GROOVED PULLEY.

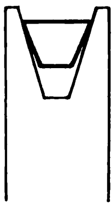


FIG. 4: WASTE OF CONTACT AND WHEN PULLEY ANGLE IS SMALLER THAN BELT ANGLE.

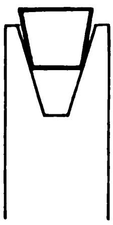


FIG. 5: WASTE OF CONTACT AREA WHEN BELT ANGLE IS SMALLER THAN PULLEY ANGLE.

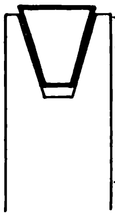


FIG. 6: PERFECT CONTACT AREA BELT AND PULLEY BOTH 28°. PULLEY TOO DEEP FOR BELT TO TOUCH BOTTOM.

HISTORY AND ANALYSIS OF BELT DRIVES

Transmission Troubles in the Days of Yore and at the Present Time.—Flat, "V" and Rubber Belts Compared—Their Merits and Shortcomings.

BY "BRITISHER."

I SEE from a recent issue of MOTORCYCLE ILLUSTRATED that the belt drive is gaining ground in the States. As it has practically driven the chain off the road in the old country, it occurs to me that a detailed account of our experiences with various forms of belt drive may interest your riders and manufacturers. In the first six years of the motorcycle movement over here, from 1896 to 1902, crude forms of chain drive contended for precedence with the flat belt and the round twisted hide belt. It was generally thought that the flat belt gave the highest efficiency, and it was preferred on pacing and racing machines because flat belts are almost exclusively used for driving shafting and machinery in factories. For a time we were very puzzled that miniature duplicates of the factory belts, run over similar pulleys and made from similar hides, gave such colossal trouble on motorcycles, while they gave little or no trouble in factories. It gradually dawned on us that factory belting can be fixed up to run at uniformly high speeds and between long belt centers, i. e., with the pulleys at a considerable distance apart. On a motorcycle the belt speed varies often and much, but is never high, and the belt centers are necessarily and invariably short. Hence the failure of the old flat belt, which we soon discarded as useless even on dry roads, and as absolutely hopeless when wet and mud were about.

For a time we clung faithfully to the twisted hide belt. We had a lot of trouble with it, because it was prone to slip on the engine pulley. A round belt in a V grooved belt only has a "point" contact, something like the contact between a shaft and the balls in its ball bearing. The total contact area on the engine pulley of the average twisted belt probably did not amount to more than three square inches, and even with a wedging type of contact, this area of contact was not enough to transmit 3 h.p., especially when the belt surface and the pulley surface got wet, muddy or worn. We improved the grip of the belt on the engine pulley by means of patent pulleys, displaying great ingenuity, and immediately the belt hook began to give serious trouble.

Realizing that we wanted better contact on the engine pulley, a stronger joint than the plain hook, and greatly increased contact area, we began to experiment with the V belt. This vastly increased the contact area (up to 6, 12, or even 18 sq. in. on the engine pulley), greatly enhanced the wedging action, and permitted of a much stronger fastening. However, the early V belts gave a great deal of trouble, for the following reasons: 1. The belts were very much smaller than they need have been. Five-eighths inch was the standard width to start with; nowadays they range from ¾ in. up to 1½ in. 2. The belts were made of inferior hide, for the sake of cheapness. Today the best makers of leather belts select their hides as carefully as the makers of a first class boot, and the prices charged for a first rate leather belt run up to as much as a dollar a foot, though about 75 cents a foot is the standard price. 3. The belts were too solid in construction, consisting of two or three plies of leather rigidly solutioned and riveted together. Figs. 1 and 2 show the effects of passing a solid belt consisting of several plies of equal length round a small engine pulley. Not more than one of the plies gets a straight pull in a belt of this type, and two at least of the plies are constantly being ruckled up against the other ply, and tending to disintegrate the belt. 4. The rivets were applied in such a fashion as to seriously weaken the narrow strips of leather, and the belts constantly broke at a rivet insertion. 5. No provision was made for drilling the holes for the belt hook centrally and vertically, and consequently novices kept making their hook holes on the skew, with the result that the belt soon pulled through the hook holes. 6. The leather of which the belts were constructed was not water-proofed, neither did the rider keep it dressed with dubbin as he should. The slight amount of slip always present with a belt drive soon burnt up the natural oil present in the leather, which immediately lost "virtue." Simultaneously, grit and dirt and slipping polished its faces, and destroyed its frictional qualities for good. 7. Just as there is an angle of section which gives the highest efficiency with automobile clutches of the cone or wedge type, so there is a correct angle section for V belts, viz., 28 degrees dead. The early belts were mostly accurate in this respect, but the pulleys were not correct. Trouble is bound to occur with a motorcycle belt unless it is cut precisely to a 28 degree section, and works in a 28 degree pulley. But as a rule 28 degree belts were running in pulleys varying in angle from 15 up to 60 degrees. Figs. 4 and 5 show the waste of contact area resulting from a difference of angle between belt and pulley. Naturally the life of the belts was reduced, and slip was very prevalent. (Fig. 6 shows maximum contact area.)

In course of time several real good leather belts were produced and patented. These belts attained flexibility not only by the excellent quality of the hides from which they were made, but also by their built-up construction. Figs. 7, 8 and 9 display sections of the best three British leather belts, the Watawata, Stratex and Whittle. These three belts use their whole depth both for pulling and also for contact area with the engine pulley. If they are used in a 28 degree pulley, kept properly cleaned and lubricated, run in a true belt line, and used with a backwheel rim which is of correct angle and has a rolled-over edge to avoid cutting when the belt is put on or taken off, they will last at least 4,000 miles on a single cylinder touring machine, and with careful use are good for even greater distances. My own record with a Watawata belt one inch in width on a 3 h. machine is more than double the above distance, but it was treated as carefully as a good pair of boots.

It will be noticed that the fastening link in these three belts may consist of a plain wood screw, and that the joint is as strong as any other part of the belt, and also as flexible. A specially designed belt punch is employed to make sure of getting a dead central and vertical hole for the joining screw.

Of late years the leather belt has rather lost ground. It remains the most economical belt on the road—no other can approach it in wearing life. It still gives by a long way the best grip in bad weather; and it still gives the highest efficiency of all belts on a very small engine pulley. Consequently, in our big endurance runs most riders carry one of the above belts as a spare; for if heavy rain comes on, their rubber belts will often commence to slip hopelessly; and when they come to a stiff hill and screw down the adjustable engine pulley to give a very low gear for climbing the abnormal gradient, only a flexible leather belt will afford a good grip—the poker-stiff India rubber belt will probably start slipping on the engine pulley before the summit is attained.

The new rubber belts are quite as expensive as the old leather belts and are much shorter lived. I personally seldom get more than 1,500 miles out of a rubber belt on a 3½ h. machine, whereas a leather belt, costing no more, will run more than double that distance. But the rubber belts are very clean to handle, and only require shortening once or twice in their lifetime.

Fig. 10 shows a section of the rubber belt. To manufacture a good rubber belt, a sheet of fabric is thinly coated with rubber, and then folded and pressed till it roughly approximates the required section of a 28 degree truncated V belt of, say, one inch width on the top flat. It is then made to fit the required contour accurately by being padded out with rubber, which is molded and vulcanized upon it. Such a belt as this will go to pieces in about 1,500 miles; but during the whole of its brief life it will be clean to handle, never stretch, and only require adjustment two or three times in all. This is true of a good sample. Some samples are exceedingly bad, probably owing to over-vulcanization—riders say such a belt has been "cooked too hard." The main defect of these belts apart from their short life is that it is not easy to drill the fastener holes accurately, as the spongy core and rubber resist the drill.

* *

NOW that rude Boreas blows, it is well to protect the magneto from the wet. A waterproof cover can be made of stout leather or rubber. A magneto of the high tension type is very easily put out of commission by a dose of water from the splash of the front wheel. If it becomes soaked through, it takes a long time to dry out the insulation and to get her going again. There are some very neat aluminum covers fitted on automobile magnetos, and I wonder that some live accessory firm does not get out a motorcycle pattern, as these would be absolutely weatherproof and would give a finished appearance to the machine.

* *

TO make the lamp burn brighter, put a small lump of camphor in the reservoir; or a few drops of vinegar, now and then.

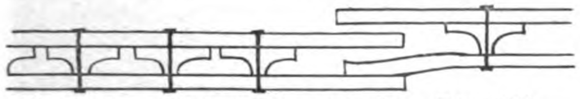


FIG. 7: WATAWATA BELT. JOINT IS MADE BY PASSING WOODSCREW THROUGH AT ARROW, SECURING WITH SMALL NUT AND FLAT COPPER WASHERS.

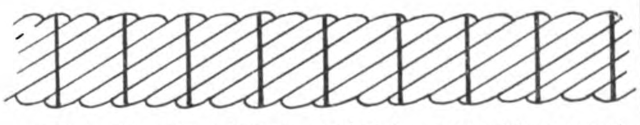


FIG. 8: STRATEX BELT. JOINT MADE BY SUBSTITUTING A WOODSCREW FOR ANY OF THE RIVETS.

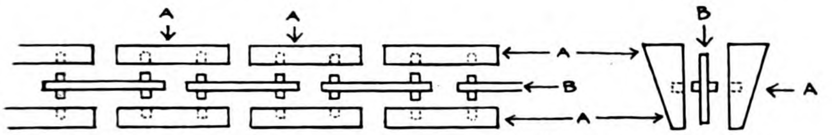


FIG. 9: WHITTLE BELT. REALLY A "CHAINBELT" THE CORE CONSISTS OF STEEL PLATES WITH PROJECTING RIVETS, LEATHER PADS COUPLE THESE STEEL PLATES TOGETHER, THE PADS BEING DRILLED TO ACCOMODATE THE RIVETS. WOODSCREWS COUPLE THE SIDE PADS (A-A) TOGETHER, BEING PASSED BETWEEN THE STEEL PLATES (B-B).

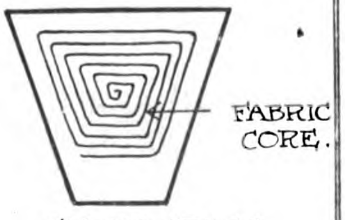


FIG. 10: CROSS SECTION OF RUBBER BELT.

FROM NEW ORLEANS TO NEW YORK

By Herbert F. Meriwether.

THE worst part of my journey from San Francisco to New York had been made when I reached New Orleans, 4,011 miles from my starting point. It must not be imagined, however, that all was smooth going thereafter. The roads between New Orleans and Memphis are anything but comfortable from a riding standpoint, and the feeling of the natives was sometimes far from amicable. But despite these drawbacks traveling awheel in that part of the country was far more enjoyable than had been my hazardous and often quite discouraging experiences in Southern California, New Mexico and Texas.

On the Banks of the Mississippi.

After having spent several days in New Orleans seeing the sights and trying to locate the very few motorcycle riders in that city, I was impelled to continue my journey. I had no little difficulty in getting directions, and finally determined to follow the route of the Illinois Central Railroad, at least as far as Memphis, Tenn. With this purpose I started out Canal street and took the levee road along the Mississippi. I had intended to take to the railroad track at Kinner and thus ride along the banks of Lakes Ponchartrain and Mauripas. I was advised, however, against taking this route, as the roadbed was very rough, with comparatively little space alongside of the tracks. Accordingly, deciding to go around by way of Baton Rouge and then back to Hammond, I found the road along the levees very good, permitting comparatively fast time into Donaldsonville, which I reached by a ferry across the river. The next day's riding was over a good road without incident, except that I caused a team of mules driven by an old darkey to run away and upset the wagon. At Baton Rouge I had lunch, obtained oil and gasoline, and then started on my way to Hammond. All went well for about thirty miles, over very respectable roads, until I reached Walker, where the road seemed to end in a swamp. The roads in this part of the State are built of logs and trees in deep, slippery mud. In many places the logs were missing or deeply covered with mud and water. I pushed through this for five miles, until I came in sight of the railroad connecting Baton Rouge with Hammond. After a six mile journey between the tracks I ran into some new ballast, so soft that I was compelled to balance the machine on one of the rails and thus push it along.

Roadside Repairs by Night.

It was now growing dark and I was without a light of any kind. I estimated that I had pushed my machine for at least three miles in this manner, when my front wheel slipped from the rail and, coming down upon a spike in a cross tie, caused a serious puncture. I managed to light a candle by using the spark plug and a little gasoline, but just as I was ready to apply the patch to the tube, the candle burned out, so that I had to finish the job in the dark. With no companions other than the black night, scores of owls, crocodiles and snakes, I picked my way for three hours until at half-past 10, thoroughly worn out, I arrived at a little logging camp called Albany. I was refused accommodations at the first house, but managed to obtain a meagre supper and humble lodging at the second place. Dawn found me almost as tired as I had been the night before, but after a very substantial breakfast I took to the wagon road again and finally reached Hammond, where I spent Sunday. That night and all the following day the rain came down in torrents. Tuesday morning I tried the road once more, but at Amite gave up the attempt and again resorted to the tracks of the Illinois Central.

Through Rain and Mud.

That afternoon, going by the way of Kentwood and Magnolia, I crossed the State line into McCoomb City, Miss. During the night it began raining again, and the storm soon put a stop to my riding over the red, slippery roads and hills of that section. At a station called Summit I returned to the railroad track, but even there I could make only slow progress into Brookhaven. Here I waited a day for the cessation of the storm, but the rain obstinately refused to stop coming down. Trying to defy the elements, I managed to get as far as Hazelhurst, where I had the pleasure of paying very dearly for my meals, lodging and gasoline. My next stop was Crystal Springs, where I took the wrong road, and after wasting twenty-four miles, found it advisable to return to the railroad tracks. On these I made very good time until, passing through a settlement called Seigle, I struck a large piece of coal and was thrown from my machine. I was unhurt, but the forks, front rim and handle bars were in a sadly dilapidated state. I spent all afternoon making repairs, and as I had an extra handle bar stem, I was again ready to mount by dusk. But the loose coal and rocks were so plentiful that I was soon forced to walk, arriving at a siding, with two farm houses, about 9:30 o'clock. Again I was refused accommodations where I first applied, and again succeeded in convincing the occupants of the second that my money was as good as that of anyone else. However, I had a good supper, spent a very pleasant evening and enjoyed a most refreshing sleep.

Broken Fork Causes Delay.

The following morning I made such extra repairs as were immediately necessary, took several pictures, and bade farewell to Pearl Settlement. At Jackson I spent the

Rough Going in Kentucky.

Through a Jungle in Tennessee.

A Fine Ohio Road.

Where One Night Was Spent.

A Pennsylvania Woodland.

A Stop Near Louisville.

day in completing repairs to my badly damaged forks and front rim, incidentally having the pleasure of meeting just one rider of a motorcycle. Next in order I passed through Canton, Pickem, Goodman, Wurant, Vaiden and Winona. As I was approaching the town of Muckhill, a bad fall caused the complete breakage of the left fork side of my machine. I finally managed to make repairs with wood and wire and succeeded in reaching Grenada that night. Out of this place I found the roads so rough and hard that I was forced to again choose the railroad at Hardy Station. At Oakland I was delayed for a few hours in replacing a broken piston ring. My journey then took me through Pope, Batesville and Sardis. I had no trouble except with frightened teams, though nothing at all unusual occurred until I neared Senatobia, where I had the most exciting experience of my entire journey.

Almost Lynched at Senatobia.

It was while approaching this town that I passed a team going in my direction. The horses became quite frightened, but did not run away. Moreover, I did all I could to help the driver. Upon arriving in Senatobia, I stopped for directions and gasoline. While obtaining these this rig, driven by a woman, came into town. The driver called an officer, to whom, however, I paid no attention, remounting my machine and leaving town in the direction of Coldwater, eight miles away. But at Coldwater I was greeted by the town marshal and practically the entire population of the place, and arrested. My machine was taken away from me and I was brought back to Senatobia by rail. Upon my arrival there I was met by this woman's husband and a mob of rough-and-ready rowdies, most of whom were drunk and intent upon lynching me. I demanded protection and a trial. They managed to get me into a little drug store, but as the crowd outside was growing larger and more and more determined to obtain revenge. I was sneaked out of the rear of the store and through many dark streets to the village jail. Even here I was at ease only for a few moments, as the mob, learning of my escape, came running to the jail, quite determined to have me at all costs. The authorities found it necessary to lock me in a steel cell, where I had to remain for the night.

Out of a Serious Predicament.

In the meantime the sheriff had sworn in a number of deputies and thus obtained a strong bodyguard for me. The mob outside was soon brought to its senses and dispersed slowly during the night. About noon the following day several citizens came to my rescue, and upon hearing my side of the story arranged matters so that I was taken out of the jail and to the residence of a Mr. Still, where I had my Sunday dinner. This disposed of, I was rapidly driven to Coldwater, where apologies were in order from almost everybody concerned in the unfortunate affair. You may be sure that I lost no time in getting away from that locality. In fact, I stopped only once more on my way to Memphis, and then for a supply of gasoline in the town of Hernando. From here on I found the roads somewhat better, and by easy stages reached the border line of the State and rode into Memphis, Tenn., after having covered 4,632 miles. I was very much disappointed to find in Memphis only a few riders and no shops. But I had the good fortune to stop at the Cullen & Butler garage, where I met a fine lot of boys and a more than hospitable host in M. Cerf, who insisted that I remain a few days with him while his repair men cleaned and put my machine in order. So pleasant was my sojourn in Memphis that it was with many regrets that I left that city. My route now took me through Covington and Ripley to Dyersburg. Although the roads were rather hilly and the dust very thick, the inhabitants were so kind that traveling in that section was decidedly enjoyable. It was not long after leaving Dyersburg that, at Fulton, I crossed from Tennessee into the State of Kentucky.

Kentuckians Very Hospitable.

Here I had the pleasure of spending many hours with one who was quite interested in my machine and the experiences I had undergone. The following day, after some hard work pushing through the dust and over many hills, I reached Paducah, where I was royally entertained by Mr. Mitchell, the local Reading-Standard agent. Next in order I was forced to cross the bridges which respectively span the Tennessee and Cumberland rivers. At this stage my machine developed motor troubles, despite which I ultimately managed to crawl into Eddyville. I shall never forget the hospitalities shown me by the residents of this place, among them Chief Engineer Depp, of the State Penitentiary, who permitted me to repair my machine in the penitentiary shop. The next night I spent at Elkton, and the following day passed through Russellville and Bowling Green into Glascow Junction about sunset. The far-famed Mammoth Cave is near this place, and of course I availed myself of the opportunity to enjoy the many remarkable features of this natural wonder. My next day's riding took me through much deep sand, over many hills and two ranges of mountains. My batteries gave out and I broke the handle bar stem of my machine, which, again put in order, carried me to Bardstown and from that place into Louisville.

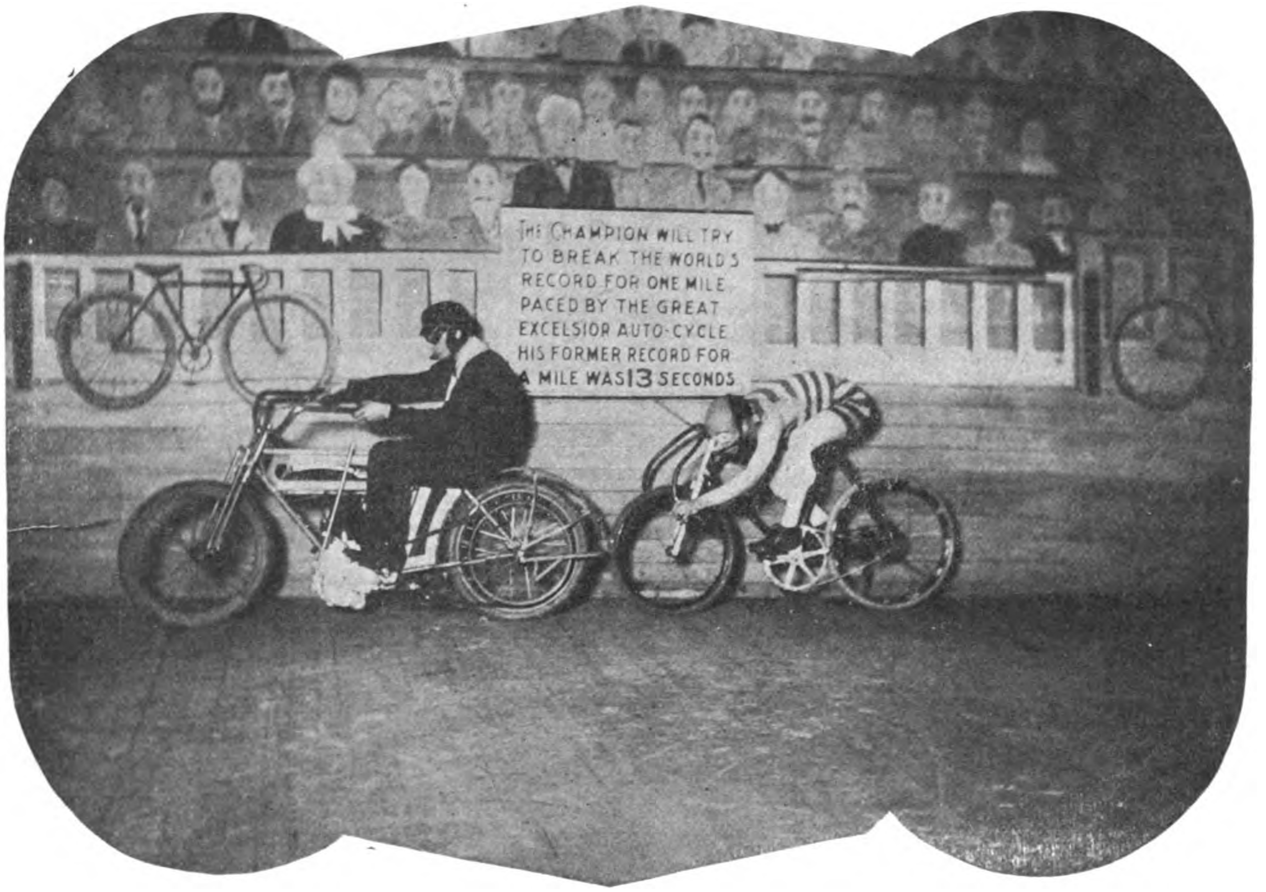
Through the Blue Grass District.

There is quite a number of motorcyclists in Louisville, where I kept my machine at the shop of R. L. Davis, the Reading-Standard agent, who offered to ride with me as far as Cincinnati. Of course, I accepted. Riding through the Blue Grass section, one of the most beautiful and picturesque in the United States, we covered 91 miles in some six or seven hours, passing through Frankfort and Lexington and arriving at night in Georgetown. We reached Walton about noon the following day, and two hours later crossed the big bridge across the Ohio opposite Cincinnati. Here Mr. Davis fell on the slippery pavement, sustaining injuries which prevented his going any further. In Cincinnati I met many very hospitable riders, among them Fred Stenger, the local Reading-Standard representative.

Between Cincinnati and Columbus I found the roads almost perfect, passing through Xenia and Springfield over the National Pike. At Columbus I met Dan Smith, whose company I thoroughly enjoyed. Between Columbus and Newark and for some distance thereafter I encountered many hills and much sand. Rain fell during the night which I spent at Zanesville, making the roads almost impassable. After a few hours' waiting, however, I proceeded to Cambridge, St. Clairsville and Bridgeport, across the Ohio River into Wheeling, W. Va. This is rather mountainous country, and the trip from Wheeling to West Washington and Cannonburg in Pennsylvania was not a very comfortable one. However, the thought that I was gradually reaching my destination buoyed me up so that I lost no time getting into Pittsburg. Here I found one of the liveliest bunches of riders I have ever met. I made my headquarters at the Reading-Standard agency, conducted by Mr. Osthoff, and was lavishly entertained by the motor enthusiasts of the Smoky City. So enjoyable was my stay here that I put off the completion of my trip for several days.

The balance of my journey through the State of Pennsylvania to Reading, and in New Jersey to Newark, and finally into New York, was easy and quite pleasant. The roads were good and other conditions very favorable. I need only mention the great welcome I was accorded in Newark, N. J., and the hospitable treatment I received in the metropolis. I had not tried to break any records, but had left the Pacific Coast simply for the purpose of crossing the country by a route which had never before been traveled by a motor driver, whether in an automobile or on a motorcycle. I experienced many hardships, but the journey was entirely worth while, for I have seen much of the country and have learned many valuable lessons. My story has been a very simple one, but I have the satisfaction of knowing that in no instance have I drawn upon my imagination for any of its details. It is a true story of the first Southern transcontinental journey awheel.

NOVEL USE OF AN EXCELSIOR AUTOCYLE ON THE VAUDEVILLE STAGE.



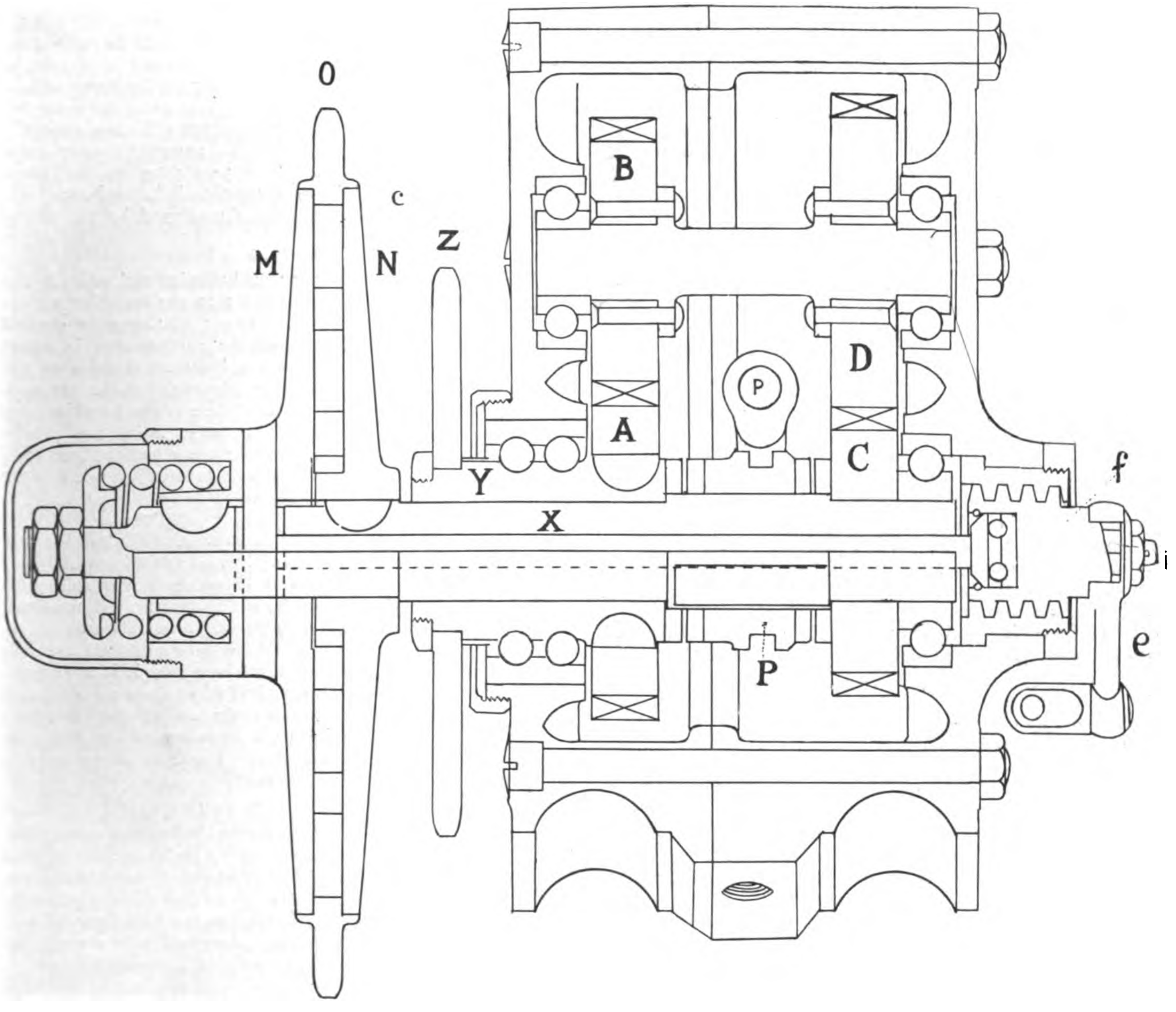
RATHER unique is the above photo, which shows an Excelsior Autocycle playing a leading rôle in a vaudeville stunt. This machine is used by Charles Ahearn, of the Ahearn Troupe of trick motorcyclists, and was purchased by him after an extended trial of several other makes. In his act—which is of a burlesque nature—he travels across the stage as slowly as possible, but with the effect of extreme speed. He has found that the Excelsior meets all the requirements and runs for some time with practically wide open throttle without overheating or burning out the oil and running dry. Even the manufacturers have been considerably surprised to find that the machine stood up under such extreme tests of its cooling and lubricating qualities. The act also demonstrates very clearly the effectiveness of the Excelsior free engine device. All in all, it is a very remarkable demonstration of Excelsior efficiency.

IT is very easy to make a mistake when assembling the parts after cleaning. For example, if the carbureter float is replaced upside down, the machine will fire only intermittently. The float chamber should be cleaned once at least during the season. The sediment gathering there makes it necessary to clean the spray nozzle and the passages leading to it.

THE screw holding the leather packing and steel washer at the end of the oil pump plunger rod often unwinds, and lets the rod become detached and jump out of the barrel. To stop the loosening of this screw, clean all the oil off the screw and the rod end with gasoline, heat them a little and tin the threads. After the washers have been put on run the screw home and dip the piece into cold water.

THE INDIAN TWO-SPEED.

SO much interest has been shown in the Indian two-speed gear and free engine as to justify the publication of a detailed technical description of that device. It will be noted from the illustration that the four gears "A," "B," "C" and "D" are always in mesh. Gears "B" and "D" are fixed on the countershaft. The motor drives by chain from its small sprocket on to the sprocket "Z,,' which is permanently secured to the sleeve "Y," which runs on the main shaft "X." The gear "A" is keyed to the sleeve "Y." "O" is a compensating sprocket which transmits the drive to the rear wheel of the motorcycle, and it is clutched between the two discs "M" and "N," cork inserts providing frictional surface. The disc "N" is keyed to the shaft "X" by the long key "m," which can slide longitudinally in the shaft. The spring shown under the cap at the left hand side of the drawing forces the disc "M" to the right, clutching the sprocket "O" between the two discs as above stated. This latter forms the free-wheel feature of the device, and to release the clutch the lever "e" is operated by a pedal on the left hand side of the machine, and turns the coarse threaded screw "f," thus forcing a pin which slides within the hollow shaft "X" against the key "m," and so compressing the spring and freeing the sprocket "O."



The central portion of the shaft "X" is squared, and upon it slides the dog clutch "P," which has four heavy teeth on each face, corresponding with similar blocks on the gears "A" and "C." This clutch is operated through a lever by means of the shaft "P," which extends through the outer case, and is connected with a cross bar, from either end of which wires extend up to the shifting handle on the top bar of the frame.

It is evident that if the dog clutch "P" is moved to the left it locks the shaft "X" to the gear "A," and there will be a direct drive from the sprocket "Z" to the sprocket "O." If, on the other hand, the clutch "P" is moved to the right, to engage with gear "C," then the drive will be from the sprocket "Z" through the sleeve "Y" and gear "A" to the gear "B," thence through the countershaft and gears "D" and "C" and clutch "P" to the shaft "X," and thence to the sprocket "O," the reduction being about one-third. All of the gears and wearing surfaces are unusually large and heavy.

TIPS AND TOPICS

I SHOULD like to see some good oil-tight chain cases on the chain driver of the future. The bad feature of this drive is that the chain loves to sling back oil all over the rider, this tendency being developed seventy-five per cent. when one is wearing clean clothes. Moreover, the life of a driving chain is practically doubled when it is securely enclosed in a case affording proper protection against dirt. The case should be made in two halves, the lower one of which should be perfectly oil tight. Then, when a small quantity of lubricant is poured in through an oil-hole, it forms a puddle in the lowest part of the case, into which the chain continually dips. This would bring about freedom from that buzzing noise associated with chain-driven machines, less trouble in oiling, a cleaner machine and rider and, above all, durability and long life to the chain. I have discarded the chain drive because of its dirt, noise and quick wear, not to mention the bother of repair, but I would be tempted to return to it if the chains were properly protected, because of its efficiency as a driving medium.

* * *

THIS is the season when one goes out to the motor-shed to find that the cold has so started the vaporization of the gasoline in the carbureter as to prevent an easy start. When the machine is provided with a petcock on the cylinder head, the injection of a few drops of gasoline will eventually get her going. Remember, however, my old-time warning against too much gasoline, owing to its liability to scour all the sheen off the cylinder walls. When a petcock is not fitted to the cylinder head, a rag dipped in hot water and wrapped round the carbureter and inlet pipe will do the trick and save a lot of hard pedalling. To take out the spark plug and squirt in a few drops is an uncertain way of starting, as the engine may fire a few times and then "give up the ghost," whereupon the whole process has to be repeated. Another little wheeze well worth knowing is that cold oil sometimes insulates a magneto and gets one guessing at 2500 r. p. m. A safe precaution against such an occurrence is to squirt a drop or two of gasoline on the shaft of the magneto just where it comes out of the bearing. This procedure is bound to cut the oil and thus insures a good contact for the ground return in the magneto.

* * *

I CAME into contact with an extraordinary puzzle the other day. A friend of mine had returned his engine to the manufacturers for a thorough overhauling, and the replacements included a complete set of new bushings, a new connecting rod and new piston rings. On reassembling the machine and starting it up, we were surprised to hear an extraordinary knocking noise, in spite of copious doses of oil injected into the right place, too. In the end, the owner took the machine back to the factory and had it tested on the running stand, with exactly the same result. On pulling the engine apart, the factory-tester found that the bearing for the new connecting rod was not quite true, and, this being remedied, the knocking immediately ceased. Evidently the effect of the bushing not being true had been to throw the piston against the side of the cylinder at every explosion.

* * *

HERE is a hint which concerns a quick method of testing valve springs to find whether they are of correct tension. As the reader is probably aware, weak valve-springs prevent a sharp closing of the valves, and this interferes with the timing of the engine. Insert the end of a screwdriver blade between the coils of the spring and twist it slightly so as to increase the spring tension. If the engine speeds up at all, it is a sure sign that the valve-spring which you have tested is too weak. To test for too strong a spring, insert the blade of the screwdriver on top of a coil and press lightly, again listening for any signs of improvement in the running of the engine. However, the apparent need of a stronger spring should not always be taken as a sure indication. In case a valve-stem happens to be bent out of line or it too tight a fit in its guide, the sluggish action which this develops may result in a loss of power, something which an increased tension of the spring will apparently cure. Therefore when replacing or when fitting a stronger spring, extreme care should be taken to see that the stem runs smoothly and straight in its guide.

* * *

OFTEN, during the winter's overhaul, one finds parts stuck together through dirt or corrosion, and it is quite a job to separate them. A liberal sousing in kerosene is best for this purpose, preferably leaving the parts to soak for some time. Light tapping with a hammer will then generally loosen up the pieces, but if this is not successful more kerosene will be required. Kerosene penetrates to the finest crevices, and for such jobs as separating bolts and nuts, collars, pins and keys, this method is employed by all skilled mechanics.

* * *

WITH respect to connecting up batteries and coils, it has been generally recommended that the trembler screws be made "positive," so that whatever platinum is carried away by the continual passage of the current may be taken from the screw and deposited upon the contact point of the trembler. This has been well thought out, for the screw is cheaper and far more easily replaced than is the trembler, and that with this arrangement the trembler point has a tendency to build up rather than to wear away and requires only the smoothing off of the extra metal deposited upon it to keep it in perfect condition.

* * *

OFTEN do I wonder what some mechanics think of the raw amateur and his work. For instance, go down to any locomotive yard and see how a real engineer deals with split pins. Perhaps you will be surprised to notice that a split pin fitted by an engineer has the ends only slightly bent outwards. This is all that is necessary as long as the pin cannot get through the hole "backwards," and just think how easy it is to remove a pin fitted in the proper way. Most of us have an idea, and where we got it from goodness only knows, that the only way to make a thorough job of it is to spread out the ends nearly at right angles to the stem. However necessary this may seem, it is far from being so.

* * *

WHEN taking down the magneto, before separating the pinions, mark them carefully so that you will be able to reassemble the engine and magneto and not disturb the timing, as it is a long and trying job to find the correct positions again. The same thing applies to the half-time or two-to-one gears. These should also be marked with a punch so that no long job will be necessary when reassembling.

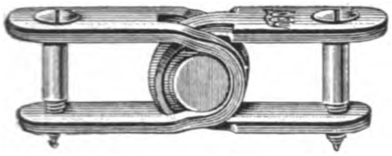
* * *

THE muffler of some machines gradually becomes coated with particles of carbon mixed with burnt oil. This forms a deposit on the walls of the muffler and insulates them so that the dissipation of heat is retarded. The outlet holes choke up and the result is continual back pressure, causing overheating as well as a distinct loss of power.

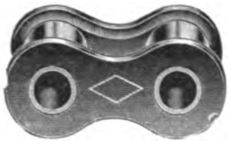
* * *

OCCASIONALLY an engine "suffers" from what is termed a blow-back through the carbureter. If the machine is fitted with an automatic valve, this symptom may be due to a weak valve-spring, but there are other causes. I recently noticed that in two similar machines, one fitted with a magneto and the other

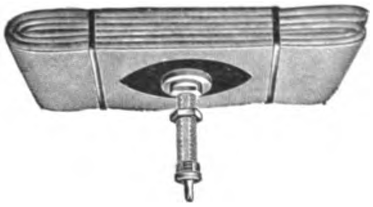
A Few More of the 1910 Accessories



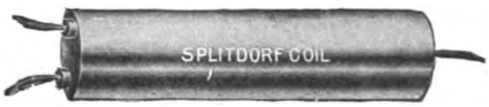
N. S. U. BELT FASTENER.

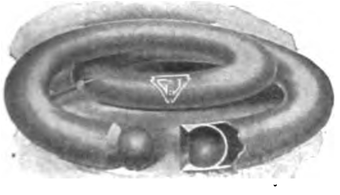


DIAMOND CHAIN.

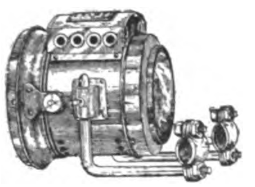


CONTINENTAL INNER TUBE.

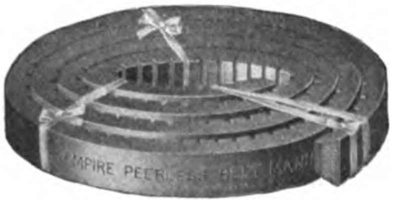




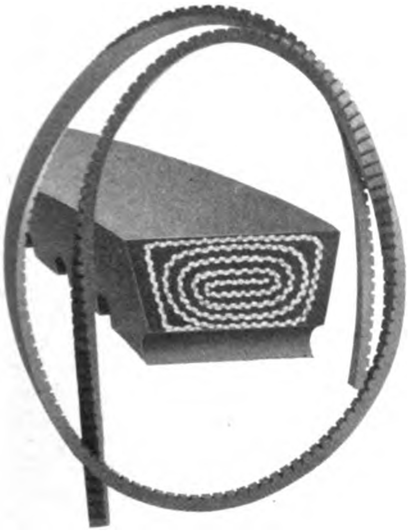
G & J INNER TUBE.



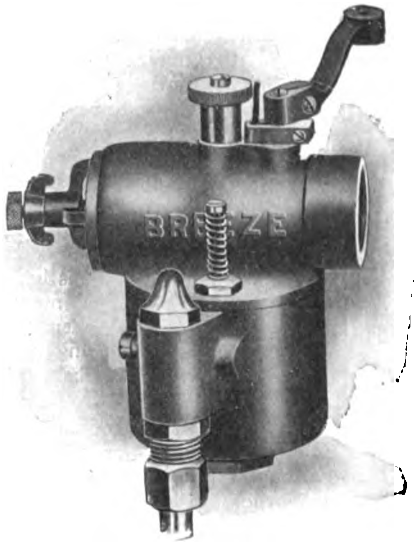
20TH CENTURY LAMP.



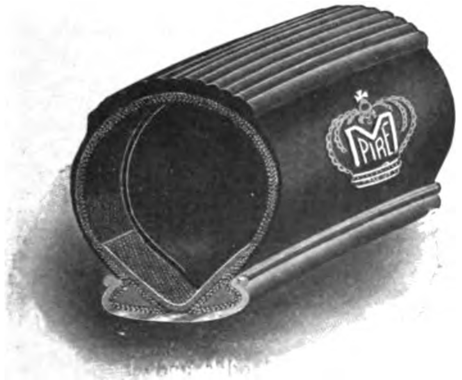
EMPIRE BELT.



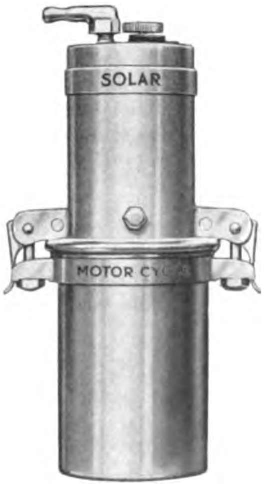
GOODRICH RUBBER BELT.



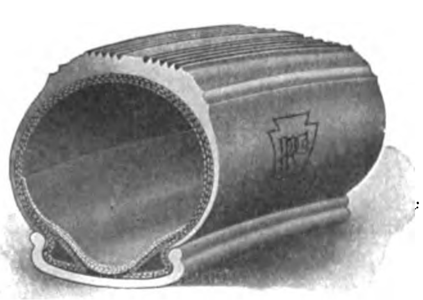
BREEZE CARBURETER.



EMPIRE CORRUGATED TIRE.



SOLAR GENERATOR.



PENN. CORRUGATED TIRE.

with battery and coil ignition, the latter was far noisier and the blow-back very noticeable. The carbureters, valves and springs were therefore transposed, but without any change being apparent. The coil was in good order; moreover, a misfire from defective sparking would be far more likely to result in an explosion in the muffler than in a blow-back along the inlet pipe of the carbureter. The obvious conclusion was that the trouble was due to the coil ignition being set to fire late—probably the manufacturers had arranged this intentionally to provide greater flexibility. However, if ignition of the charge occurs half or two-thirds the way down the firing stroke, combustion will take place right through the exhaust stroke. At the conclusion of the stroke there will still be some incandescent gas in the exhaust port; then, on the beginning of the induction stroke, this burning gas would be drawn across by the suction towards the inlet valve, and there meet the incoming charge, igniting it, causing a blow-back. Another theory is that the result is due entirely to the difference in the coil and magneto sparks. As is generally admitted, the magneto produces more complete combustion. On the other hand, it will be claimed that, provided the respective sparks occur at the same instant, the rate of combustion should be practically the same, other factors being equally favorable, particularly with regard to the position of the plug points relative to the mass of the charge.

❧ ❧

OUR "trouble man" often meets with great difficulty when asked to diagnose an ailment in a reader's machine. A man writes to us in this strain—"My machine won't go. What is the matter with the brute?" This is what we might call insufficient data. We want to know *all* the symptoms, what has been tested and the result of each particular test, such as spark, compression, timing, carburation, etc. I met a man in the street the other day who, knowing my world-famed reputation (forsooth), stopped me, exclaiming: "Say! when I try to start my motor she only goes ker-bang, ker-bang, and then stops. What is the matter with the blame thing?" Strange to say, more by luck than anything else, I managed to uphold my reputation even after this lucid explanation. I gave it as "timing wrong," and sure it was, but I don't want to risk any more on the "ker-bang" type of inquiry? I met the same chap a few days later, and the state of his hands told me that more information was sought. He led me to the machine, where, when he had obtained a few spasmodic kicks, I took out the spark plug, tested it, and, finding the points too far apart, replaced the plug and she "ker-banged" merrily.

❧ ❧

IT is surprising how much loss of power is caused by minor leakages in compression. The losses caused by pitted and scaled valves and seatings are quite apparent, and in order to test for other leakages it is only necessary to smear the suspected places and joints with a copious dose of lubricating oil, then turn or pedal the engine over to the compression stroke and watch for bubbles. This is all-important. It is well at the same time to see that the spots on the cylinder head where the gaskets have their seatings are free from any scaly deposits, as these prevent the gaskets from resting snugly and squarely in position. Great care should be exercised in testing for any leakage of compression round a detachable cylinder head. The pressure of the securing bolts should be absolutely uniform. The tightening process should be carried out by going from one bolt to the other, not, as some people do, by tightening one bolt at a time. I have found it to be the best plan to periodically renew the gasket here, as it does not do to leave anything to guesswork in such a vital spot.

❧ ❧

WHEN an unaccountable loss of power sets in and the rider has tested the valve springs, ground in the valves, searched diligently for any leakage of compression on the cylinder head and gauged the tappet lift, there is little else to suspect than a leakage of gas past the piston rings. There is a quick way of ascertaining this without dismantling the cylinder. This is to run the engine on the stand or on the road for a short distance at full speed and then place one's hand against the crank case. If this is unduly hot, it is a sure sign that the gas is escaping past the piston rings, and unless the slots have worked into line, the chances are that a new set of rings will be necessary. But it is well to investigate before ordering a new set, as I have seen a rider fooled this way, owing to the proximity of a hot exhaust pipe. Of course, crank cases become heated to a certain extent, but they should never become so hot as to be unbearable to the hand.

❧ ❧

I HAVE noticed that it seems to be the general habit of a rider who runs his machine on the stand for testing purposes, to speed up the engine to an abnormal number of revolutions. This is very poor policy, for when the engine is running at a high rate of speed it is very difficult at times to distinguish any signs of erratic running, and one might easily overlook an occasional misfire, as the explosions take place so closely together. The best way to run the engine for tuning up or fault-seeking is almost fully retarded; then, later, she can be sped up to see whether there is any miss at high speeds. In spite of many warnings, I notice that riders are too fond of running an engine on the stand for long periods. A minute is about the limit, as it stands to reason that a "still" engine will probably overheat. I firmly believe that this carelessness on the part of some riders is the direct result of many a roadside struggle with broken exhaust valves.

❧ ❧

COASTER brakes have to stand a great deal of abuse, and it is surprising how they last with riders who oil them only once a year and never think of cleaning them. Road dust and grit soon wear down brakeshoes and braking surfaces, and therefore it is wise to swill out the brake with kerosene occasionally and then give it a liberal dose of the very best machine oil, not ordinary engine oil, as used by some riders. If this is done the braking surfaces will wear much longer. Speaking of machine oil, the very best must be used in the magneto. Do not give it too much lubricant, or it will run along the automatic bearing into the contact case and will probably cause intermittent misfiring until the contacts are cleaned with a squirt of gasoline.

❧ ❧

I AM always on the look-out for novel repairing stunts. I came across one lately which certainly can claim to be new and may be original, for all I know. A rider was out for a spin and had the misfortune to burst his rear cover, the hole being a regular blow-out. He repaired the tube successfully and then started to have a go at the cover, when he found that there was no canvas of any kind in the wallet. Now, I have heard of many tricks being resorted to in an emergency like this, but this man had all the other fakes easily beaten, for he used one of his detachable shirt cuffs for the job, and went on his way rejoicing.

❧ ❧

HERE is a tiplet from the rubber industry which should be very useful to those who are preparing their machines for winter storage. It has to do with the preservation of tires and tubes during the cold spell. As much turpentine should be poured into alcohol as the latter will take up. Then the solution is applied to the tires and tubes. The alcohol evaporates and leaves on the rubber a fine deposit of turpentine, which is generally claimed to be a first class preservative and will prevent the deterioration of the tires and tubes.

❧ ❧

MANY riders carry small odds and ends all jumbled together in the kit bag. Bolts, nuts, washers, etc., can easily be packed in a small flat tobacco tin. A very handy way to carry split pins is to string them on a small circle of wire, threading it through the heads of the pins.

George M. Hendee.

HENDEE COMPANY'S CAPITAL IS $2,600,000

George M. Hendee is President and Oscar Hedstrom Vice-President of Reorganized Corporation—Factory to be Enlarged in the Spring—The Story of a Wonderful Growth.

Oscar Hedstrom.

THE Hendee Manufacturing Company, of Springfield, has been reorganized with a capital of $2,600,000. The management and policy of the company will remain unchanged, but a new factory considerably bigger than the present one will be begun about March 1 and completed before summer. The company now employs over 500 skilled workmen and is running a night shift to get out the 7,500 machines which the 1910 output is expected to be. The increase in factory space and capacity will rank this company among the biggest in Springfield.

George M. Hendee, who has built up this big business, remains at the head as president and general manager of the new company, which retains the name of the Hendee Manufacturing Company. Oscar Hedstrom, designer of the Hedstrom motor which has made the Indian machine famous, is vice-president and director of the new company and is its mechanical engineer. Frank J. Weschler, who has been sales manager of the company for four years, is secretary and treasurer of the new corporation. The other directors are Edwin A. Carter, vice-president of the Chapman Valve Company, of Springfield; William E. Gilbert, vice-president and treasurer of the Union Trust Company, and William B. Thompson, of New York, of the brokerage firm of Thompson, Towle & Co., members of the New York, Boston and Chicago stock exchanges.

The capital of the new company is divided into $600,000 of 7 per cent. preferred and $2,000,000 of common stock. It is announced by the officials of the company that the stock has practically all been taken up. The new factory building will be about 250 feet long and over 40 feet wide. It will be five stories high and will have a basement floor under all of it. The present factory building is about the same length, but has only four floors so that the new factory building will increase the floor space by 150 per cent. The new building will adjoin and connect with the present one at the apex end of the triangle shaped lot which the company owns between State street, Wilbraham road and the Highland division tracks of the New Haven road. The new building will front on Wilbraham road and will replace the old wooden building between the fire engine house and the corner.

The business is an outgrowth of a bicycle business started by the Hendee Manufacturing Company in 1898 with a capital stock of $5,000. The manufacture of motorcycles was begun in 1901 and the growth in the past years has been consistent in spite of its rapidity. The company is one of the pioneer makers of motorcycles in this country and the largest manufacturer of these machines in the world. The company has large branches in Chicago and London, Eng., and a big export business is being opened. When the big addition is ready and equipped it is stated that the company will have a capacity of at least 20,000 machines a year.

There is romance in the history of the Hendee company. Its founder and president, Mr. Hendee, was a hero in the days of high bicycle riding and holder of the world's record. Then he manufactured bicycles and although it was in the declining days when some manufacturers were forced down or out of the business, Mr. Hendee made "a go" of it and turned out several thousand wheels a year for a time. Then Oscar Hedstrom came along with a self-propelled bicycle when motor-paced bicycle racing was just coming to be the popular sensation among bicyclists. Mr. Hedstrom had a machine that ran faster and better than the foreign makes, which were then the only ones made, with the exception of Mr. Hedstrom's. Mr. Hendee saw the opportunity and he and Mr. Hedstrom got together. The progressiveness that characterizes their policy, mechanical and commercial, has resulted in making the Indian the biggest seller of all motorcycles. Now the Hendee company is in the front rank in a new field and will soon have two models of flying machine engines complete. These are the design of James H. Jones.

THE Central Passenger Association will grant a rate of one and one-half fare to all visitors to the Chicago show, provided not less than one thousand present the certificates referred to below. The rate is granted on account of the convention of the American Automobile Association, and not for the show, but membership in the organization is not essential.

On leaving home ask the ticket agent for a certificate on account of the convention of the American Automobile Association. This certificate must be on the form regularly used by the railroad for the purpose. An ordinary form of receipt will not be accepted. Immediately on your arrival you must present the certificate to the agent of the Central Passenger Association at the headquarters of the American Automobile Association in the First Regiment Armory, who will be in attendance to receive and validate certificates from 9 a. m. to 12 m., and from 1 p. m. to 5 p. m. daily from Feb. 5 to 12, inclusive, Sunday excepted. Do not neglect this important detail.

The rate will go into effect when the agent has received and validated one thousand of these certificates, for which a fee of twenty-five (25c.) cents each will be collected. Provided one thousand or more are received, and duly validated, the certificate will be accepted by the ticket agent in payment for one-half of the fare for the return journey.

You may leave home at any time between Wednesday, Feb. 2, and Monday, Feb. 7, inclusive. You may leave on your return journey at any time after 1,000 certificates have meen presented and validated up to and including Wednesday, Feb. 16.

The territory embraced by the Central Passenger Association covers Indiana, Ohio, Michigan and part of Illinois, Northern Kentucky, Eastern West Virginia, Western Pennsylvania, and Western New York. It is bounded on the east by Buffalo, Niagara Falls, Salamanca, Pittsburgh and Wheeling; on the south by the Ohio River, including Louisville; and on the west by a line drawn from Chicago through Peoria to and including St. Louis.

WITH THE CLUBS

SYRACUSE BOYS DINE AND ELECT.

THE annual banquet of the Syracuse, (N. Y.) Club was held the evening of Jan. 14, at the St. Cloud Hotel. Covers were laid for fifty, and an orchestra furnished music. Fred W. Clook, of the Harley-Davidson agency, was toastmaster, the invited guests including Commissioner of Public Safety Hollister E. Hessler, Deputy Commissioner Seibert T. Friedrich, Chief of Police Martin L. Cadin, Police Justice B. J. Shove and C. Arthur Benjamin, of the Automobile Club of Syracuse. Mr. Benjamin was at the Automobile Show in New York, Justice Shove was ill, and the other officials apparently misconstrued the purpose of their invitations. They were evidently of the opinion that the club wanted to win their good graces, and accordingly they stayed away.

Dr. C. W. La Salle, of Rochester, president of the new Tri-City Union of Motorcyclists, and H. O. Alexander, the latter representing the B. F. Goodrich Company, of Akron, O., were among the guests. After the banquet Mr. Clook called on various members for short addresses.

Then came the annual election of officers at the club rooms in the Hendricks Block, resulting as follows: President, A. V. Brewster; vice-president, Fred L. Walrath; secretary, J. M. C. Gillespie; treasurer, Harry F. Cook; captain, George W. Fenner; first lieutenant, George T. Lockner; second lieutenant, Percy Owens; clerk, Harold F. Turner; directors, George W. Sparks, Jr., Harold F. Turner, E. L. Martin and Claude Scott; racing board, George W. Fenner, Fred W. Clook, James Fynmore, A. H. MacGraw, George Reed and William Manders.

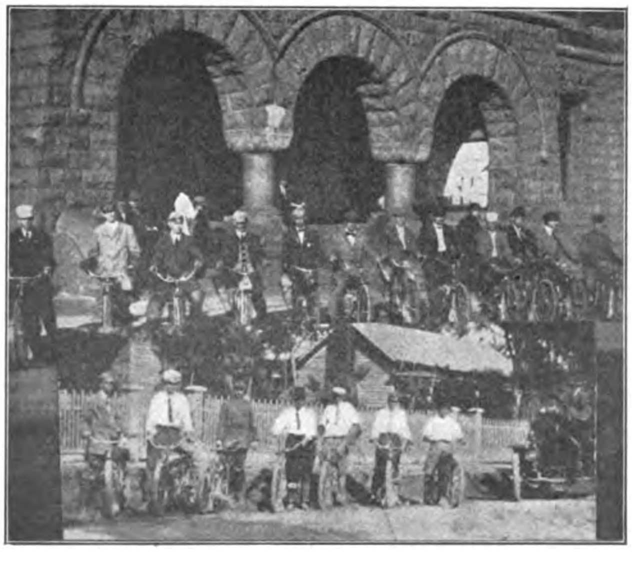
* *

NEW CLUB IN JACKSONVILLE.

J. YERKES is president, Doc Cameron secretary and William Johnson treasurer of the recently organized Jacksonville (Fla.) Club. The charter membership of the organization is twenty-seven.

* *

THE larger of these two photos shows the Dallas Motorcycle Club at the Court House, ready to start off on one of its weekly runs. The lower picture is that of seven Dallas riders, some of whom are members of the club, while others are free lancers.



UNIQUE CONTEST ON SPRINGFIELD TRACK.

THE Springfield Club proposes to hold a novel contest on Decoration Day, on the Stadium track at Springfield, the fastest motorcycle course in the world. Manufacturers and individual riders will be invited to nominate entries, which will be limited to about ten starters, that being considered the greatest number able to ride safely at one time. General invitations will be sent out at once, and if any manufacturer or rider qualified to take part fails to receive such invitation he should at once communicate with the chairman of the committee in charge of the event, Robert W. Ellingham, of the Springfield Motorcycle Club.

The regulations governing the contest will be as liberal as possible consistent with systematic management, and everything possible will be done to promote fair play and good sport. Such a contest should bring out the best talent in the country, and if properly supported would be one of the most notable events of the season in the motorcycle world, developing as it would the capabilities of both rider and machines as they have never been before in any country. The promotors hope that the trade will give them its most enthusiastic support.

* *

BUFFALO CLUB ELECTS OFFICERS.

AT the annual meeting of the Buffalo Club, held Jan. 5, at the German-American Hall, the following officers were elected: President, W. Q. Cramp; vice-president, Louis Wipperman; secretary, F. J. Williams; treasurer, W. Cloudsley; road captain, C. A. Johndahl; road lieutenant, C. M. Logan; directors for two years, W. Schack and O. H. Peters; directors for one year, Thomas French, Jr., J. Hengerer and O. L. Neil. After the election, the members were served with a buffet luncheon. George Mackey sang his new song, "The Chase of the Dust Eaters."

At the Jan. 12 meeting of the club it was decided to lease quarters at the Meadow Club, 3 Parkside avenue. Mr. Graham reported that the Tri-City Union would hold all races and road meets under the sanction of the F. A. M. It is the intention of the T. C. U. to gather information as to roads, gasoline stations and doings of the club and publish the same in a monthly magazine, which will be sent to all members and to the local dealers. The first issue of this paper will be sent out about March 1.

* *

FRESNO CLUB CELEBRATES BIRTHDAY.

OFFICERS for the year were elected at the regular meeting of the Fresno (Cal.) Club the evening of Jan. 11. It was the first session in the club's new hall and the attendance was the largest in months. It was decided to hold the first annual banquet of the club on Tuesday evening, Jan. 25. The dinner, by the way, was well attended and entirely successful. The club is now one year old. The new officers are as follows: President, W. J. Mitchell; vice-president, Dr. E. J. Couey; secretary, Martin Lauer; treasurer, Ed Wrought; road captain, George Wood.

* *

A NEW CLUB IN SPRINGFIELD, O.

N. S. PIPER is president of the recently organized Springfield (O.) Club. I. O. Bishop is vice-president and C. T. Hudson secretary and captain. The membership is comfortably large and Secretary Hudson reports that the prospects are most encouraging.

MOTORISMS

THE Michigan folks are trying to pass a law this year to banish all narrow tired wagons from that State.

The State Highway Commissioner of Ohio has asked for $880,000, or $10,000 for each of the eighty-eight counties in that State, to be spent on good roads in 1910. Last year the counties gave $5,000 each.

Riders of Columbia, South Carolina, are rejoicing over the completion of a new stretch of highway extending from Aiken to Augusta.

Some late statistics covering the motor vehicle registry of Great Britain and Ireland up to Sept. 30 of last year are about as follows: Grand total 183,773, which includes 84,840 private cars, 15,181 cars used for trade purposes and 75,000 motorcycles.

It seems that in time London will lose its famous horse omnibus service. During the last fifteen months those companies operating the horse omnibuses lost $220,000, whereas the motor omnibus folks showed a profit of $297,000.

* *

MORTON PRESIDENT OF NEW YORK CLUB.

THE annual meeting of the New York Club was held in its new headquarters, 2650 Broadway, Thursday night. There were speeches, refreshments and, of course, an election of officers, resulting as follows: President, Robert Morton; vice-president, G. Jenkins; secretary, H. C. Mapp; treasurer, F. W. Horenburger; captain, F. Seery; first lieutenant, Al. Kreuder; second lieutenant, J. F. McLaughlin; directors, F. B. Widmayer, E. Kircherer, Stanley Kellogg and W. Kuehn. Twelve new members were admitted.

* *

F. A. M. JOTTINGS.

C. C. WILBER, vice-president of the Eastern District F. A. M., is very much elated over the announcement of E. S. Mayforth, commissioner of Springfield, Mass., who reports that the Springfield club has voted to affiliate with the F. A. M. A. J. Sicard, a New Jersey Commissioner, has resigned that office owing to a change in his business connections. W. R. Schoonmaker, of Arcola, has been appointed to succeed him.

* *

DANIEL C. JOHNSON, Bellows Falls, F. A. M. Commissioner for Vermont, has appointed J. B. Crandor, of the same place, to the State secretaryship.

* *

ONE of the recent affiliations with the F. A. M. is that of the New Haven Club, a group of whose members appear below. Mr. C. C. Wilber, vice-president for the Eastern District, reports that much of the credit for the good work in getting the New Haven Club in line must be given to C. W. Hulse, of that city.

Some of Louisville's (Ky.) "Harley" Riders.

THESE riders are the nucleus of the club in process of formation in Louisville. P. H. Klein is actively at work seeking to arouse interest among the motorcyclists in that city, and he is anxious to have club secretaries correspond with him, suggesting plans for organization, etc. His address is 2611 Fourth street. Louisville is big enough to have a club, and those who are concerned in the growth of the sport should do all within reason to help Klein and the other Louisville boys to make the club proposition look attractive.

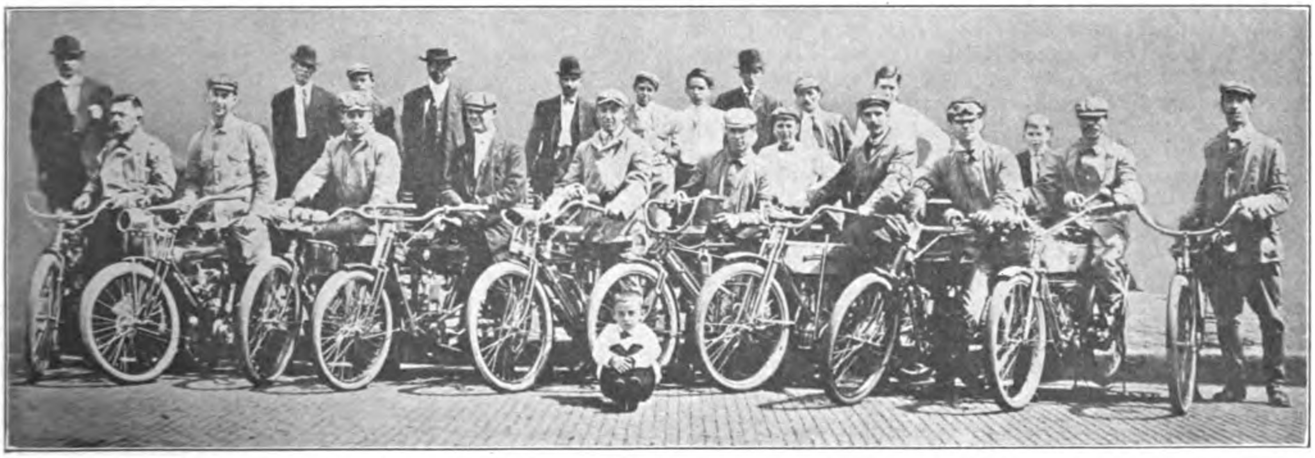
* *

MOTORCYCLE EARNS $8,000.

HERE is the star story of the season. It is not a long tale, but it places the little two-wheeler in such a desirable light as to make it deserving of all the publicity we can give it. The story is based on facts, vouched for by A. B. Lee, one of our subscribers in Silverbell, Ariz. Mr. Lee writes us as follows:

"There is no sport like motorcycling. However, the motorcycle is valuable not only as a means of recreation but also for business purposes, as I have demonstrated entirely to my satisfaction. In fact, it is to my little two-wheeler that I can attribute the success of a business deal which netted me a profit of $8,000. This transaction came about in this way:

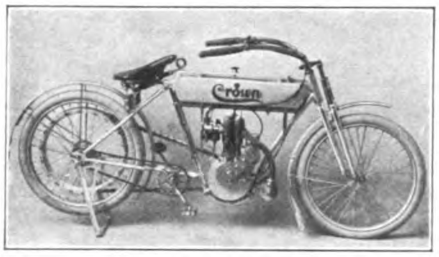
"I heard of a piece of mining property away out in the desert. There was no water to be had along the route, and the only alternative was apparently to buy an expensive outfit, including a suitable wagon and team of horses, wherewith to reach the point where the mine was situated. I had absolutely no money at the time and was unable to go to this expense. I was led to understand that the proposition was worth looking into, and you can imagine my chagrin until I hit upon the plan of using my motorcycle. To make a long story short, I rode across that desert, examined the mine, interested other parties, and now, thanks to my motor, I am independently well off."



THE CROWN, A VERY PROMISING NEWCOMER

DESIGNED along the lines of the Triumph, the most prominent English machine, the Crown, the specifications of which have just been announced by the Great Western Manufacturing Company, of La Porte, Ind., promises to make a big dent in the 1910 market. The Great Western folks have built bicycles for many years, and, for a time, also a successful motorcycle, and although the Crown is a newcomer, it is so worked out in design and constructural details as to insure its coming quite up to the expectations of its makers.

The single-cylinder engine is of special construction, having a 3¼x3½ ball-bearing motor with mechanical valves, a little air-cooling device for the springs and detachable cap covers for the valve rods. The Crown is made exclusively for ignition by magneto connected with gears, properly housed and covered, the magneto stand being cast integral with the motor. The carbureter is the English Brown & Barlow, controlled by levers connected to the handle-bar, very simple, accessible and easy to operate. The starting arrangement comprises the celebrated Fauber crank hangers and roller chain, with a sliding bracket for the tightening of the chain, a compression lift with cable wire attached to the handle-bar, and a magneto advance conveniently set in the center of the top bar and easily reached and operated. A Corbin coaster and hand brake is fitted.



THE CROWN.

The frame construction gives an easy and low position, the loop double bar and connections being of the finest steel fittings, accurately machined. The head is in one piece with a long projecting lug that is part of the construction. The curved lower bar is one of the strong features, insuring both symmetry and strength, seamless 1⅛ inch—16-inch tubing being used throughout. The rear forks and stays are bent carefully so as to properly clear the belt drive, the belt pulley being attached to the spokes on the rear wheel in the most convenient manner. The front fork is built on the double rocker principle, with a spring cushion, the connections and rockers at the lower end, where the front wheel is attached, being especially strong. The wheel base is 58 inches. Transmission is by means of a Shoemaker leather "V" belt.

The 26-inch wheels are fitted with heavy single clincher steel rims and 36-inch spokes of heavy gauge. Morgan & Wright or G & J. tires are standard equipment. The tank holds two and one-half gallons of gasoline and one gallon of oil, the oil being fed with a pump, which is very easy of access. The gasoline feed pipe has a special English strainer.

The mudguards are of heavy steel, corrugated and properly attached and braced, with a large leather flap as a mud protector. The rear guard has a spring steel holder for the stand, which is made of heavy channel iron of unusual strength. An English free engine is fitted to each machine. A large brass and nickel-plated pump is attached to the seat mast tube, and a complete equipment of tools is included. The finish is a special aluminum, giving the machine a very handsome appearance. The Great Western Manufacturing Company has a large factory with every facility for producing a first class, high-grade machine.

* *

B. J. H., Jr.—The work to which you refer is done by the F. B. Widmayer Company, 2312 Broadway.

CHAIRMAN THORNLEY SUSPENDS DEROSIER

DR. J. P. THORNLEY, chairman of the F. A. M. Competition Committee, announces the suspension, for different periods according to the nature of their respective offenses, of Jacob DeRosier and George Schramm, as follows:

DeRosier, charged with talking back to the referee, one month; for reckless riding, two months, making in all three months, his suspension beginning Dec. 18, 1909, and ending on the morning of March 18, 1910.

Schramm, charged with disobeying the referee, one month; entering a novice race after having won prizes elsewhere, six months; refusing to give up a prize when ordered by the referee, six months, making in all thirteen months, beginning. Dec. 18th, 1909, and ending Jan. 18, 1911.

M. J. Graves was suspended for one month for entering an ineligible machine. His suspension period expired Jan 18th.

* *

THREE MORE F. A. M. REFEREES.

DR. J. P. THORNLEY, chairman of the F. A. M. Competition Committee, announces the appointment of the following official referees: J. U. Constant, 422 Gates avenue, Brooklyn; E. L. Moore, 313 Arcade Annex Building, Seattle, Wash.; also the provisional appointment of N. S. Gresham, Birmingham, Ala. Chairman Thornley explains that the provisional appointments are made subject to the recommendation or endorsement of local clubs, as the chairman of the Competition Committee is desirous of obtaining only such men as have some backing and standing in the community in which they will undertake these important duties.

* *

NEW OFFICERS IN PROVIDENCE.

THE annual meeting and election of officers of the Providence Club was held Sunday, January 23, at the rooms of the club, 298 Blackstone street. An outline of the season's events was presented, and much activity is expected among the members during the coming season. A committee was appointed to arrange for the annual dinner, which will be held some time this month. The Providence Motorcycle Club is now affiliated with the Federation of American Motorcyclists. The officers are as follows: President, F. E. Domina; vice-president, Clifford Frazier; secretary, William W. Scott; treasurer, B. A. Swenson; captain, Charles H. Westcott; first lieutenant, R. I. Burlingame; second lieutenant, Elmer Stewart. Board of Governors—E. L. Buffington, F. E. Domina, Clifford Frazier, William W. Scott and B. A. Swenson. Membership Committee—E. L. Buffington, Charles H. Westcott and B. A. Swenson.

* *

R.-S. VAN PLOWS THROUGH SNOW.

THE snowstorm which recently crippled traffic throughout the eastern part of the country did not worry business men of New York who have been wise enough to use motor wagons in their delivery departments. But motor wagons are not the only vehicles of transportation that can defy the big snowstorms, as was clearly demonstrated by the fact that a 3-h. single-cylinder Reading-Standard motor wagonette covered 42 miles in delivering shoes, etc., from a point in Manhattan to various Regal stores in Brooklyn and the Bronx.

* *

ANOTHER branch office has been opened at 915 First avenue, South, Minneapolis, by the Goodyear Tire & Rubber Company.

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J. Leo Sauer - - - - - - - - - *Editor*
L. H. Cornish - - - - - - - *Advertising*

FRANCIS P. PRIAL.

LITTLE did we imagine when we began the preparation of this issue, that it would be our sad duty to announce therein the death of Francis P. Prial, president and treasurer of the Motorcycle Publishing Company, and under whose general direction Motorcycle Illustrated has prospered so wonderfully since the May of 1908, when Mr. Prial acquired the paper. Mr. Prial breathed his last Monday morning, the 31st day of January, and when his soul left its physical home a genius went out of this world. An attack of typhoid fever of two weeks' duration finally overcame the perseverance and indomitable courage of the patient who, though he suffered greatly, struggled bravely until the very last, a remarkable man even on the very brink of Death.

The shock of Mr. Prial's demise is too overpowering to permit the writer, just informed of his passing away, to do justice to his wonderful abilities as a publisher and business man, or to those moral and mental characteristics which made him a valuable friend and adviser as well as a brilliant director of this paper. Energetic, conscientious and broad-minded in everything he undertook, Mr. Prial acquired fame and a fine reputation in the metropolitan publishing world. His extraordinary success with *The Wheel, Motorboat* and several other publications stamped him as a man of true greatness, and when he acquired this paper the effect of his influence began to be felt immediately. Motorcycle Illustrated grew by leaps and bounds until it quite attained the ideal which he whose master hand directed its destinies had in mind. Mr. Prial left his desk at least with the conviction that, if he should never return, he would leave to his successors a heritage of which they could well be proud. He had done his work to the best of his ability, overcome many serious obstacles and built his paper upon the rocks of sound business principles, a liberal policy and a determination to give everyone fair and honest treatment in all things and at all times.

It will be the constant endeavor of those upon whose shoulders Mr. Prial's former responsibilities will fall to further build up the paper as he would have done. Those who succeed him in the task, who have worked with him for some time, will make it their solemn duty to perpetuate his memory in a manner which would have pleased him most, that is, by effecting steady, unremitting development and progress in every department of this paper. Mr. Prial has passed into the Great Unknown, but his work still lives.

THE CHICAGO SHOW.

IT is without the slightest hesitancy or any thought of doing injury to our pride that, even before the opening of the Show, we award to the one in Chicago the palm for creating motorcycle enthusiasm and stimulating a buying interest. This isn't because the Chicago Show is to be any better, more valuable or instructive than was the Madison Square Garden affair, but simply on account of the fact that Chicago has the advantage of location, that is, from a motorcycling standpoint. It may not always be so, but there is no denying that such is now the case, easily explaining the eagerness with which exhibitors anticipate a big selling and agency-placing session at the Coliseum, the Annex and the Armory next week.

On the other hand, it is interesting to note that more business was done at the Garden this year than ever before. The New York Show record in this respect is one which it will not be easy to surpass, for the manufacturers are almost unanimous in declaring the practical results were to have been eminently satisfactory. Generally speaking—the exceptions being few—the Eastern manufacturers do best at the Garden, and the Western makers in Chicago. The reasons for this are so well understood that they need not be stated. Again, the show exhibitor, while by no means disparaging the value of sales of single machines, does not buy space simply to convert his factory into a retail store. He sends his selling stars and his machines to the big shows to permit the former to meet in a given time the largest possible number of actual and prospective dealers. A Show is successful largely in proportion to the number, progressiveness and buying capabilities of the agents in attendance. This is the factor which finally determines its practical value.

It is probable that the dealers will be more largely in attendance at the Chicago Show, although a satisfactorily large number of them were seen in Motorcycle Row at the Garden recently. In any event, we hope and we believe that every exhibitor at Chicago will break all selling records. We cannot tolerate that narrow spirit which, in certain New Yorkers, breeds jealousy of the magnificent metropolis of the Middle West. Chicago and her people have so much to commend them that they are deserving of the praises and good wishes, instead of the hypercriticisms and envy, of every full-blooded, dyed-in-the-wool American. The wonderful Chicago is certain to produce a remarkable Show, and we of New York who admire true greatness, wheresoever found, are proud of our big sister city and those who are forwarding her welfare with such gigantic strides.

* *

"CHARGES" AGAINST DR. THORNLEY.

BATTLING for a principle is perhaps the noblest occupation of man, while indulging in mean personalities, whether or not a principle be at stake, one of the most contemptible. We fail to see any reason or justice in everlastingly waging an embittered campaign such as is now being conducted by our contemporary against the chairman of the F. A. M. Committee. It seems that he cannot render a single decision of any consequence without being subjected to an onslaught of sarcasms and a totally uncalled-for questioning of his motives. He is now made to bear the entire responsibility for a judgment unanimously rendered by the entire Competition Committee and, we are told, formal "charges" against him are now in course of preparation.

We hold no brief for Dr. Thornley but, aside from the intrinsic merits of the case, why should he alone be held responsible for a decision which he left to all the members of the Competition Committee, who have sustained him without a single dissenting vote? Or are we to assume that our contemporary holds that all these gentlemen are unfair, prejudiced and dishonest? Why isn't it at least consistent in its manifest purpose to satisfy the unreasonable demands of its enmity against the chairman of this committee? However, we are willing to concede to Dr. Thornley and his fellow-committeemen a determination to act justly and intelligently in all their deliberations, even though they may err now and then.

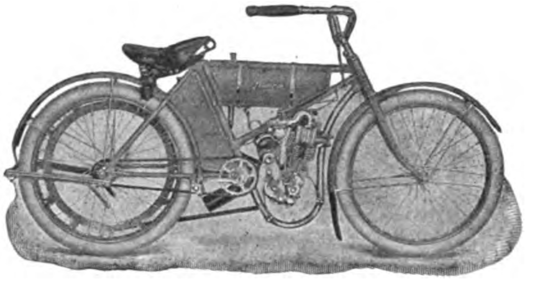
NEW WAGNERS STRONG AND DEPENDABLE THROUGHOUT.

STURDINESS, strength and simplicity are the most striking qualities of the 1910 Wagners which, while they comprise many of the specifications which have achieved so much popularity for this make of machine in past years, show many important improvements. The Wagner diamond loop frame and twin fork are distinct features in frame and fork construction. Three bars coming from the head form the diamond and loop for the support of the motor. The loop and seat mast are formed from one bar, and the top and center bar are further strengthened by an internal vertical reinforcement fitted and brazed into the tubes before the frame is assembled. The rear forks are without joints or offsets and are very strong. The use of the loop for the support of the motor places the latter low and forward out of the way of the rider. The motor is clamped to, and wholly supported by the loop. When it becomes necessary to remove the motor for any purpose, it may be accomplished in a few moments and without dismantling the whole machine. The tanks or battery boxes may be removed independently of each other or the motor.

The Wagner twin fork is of quite perfect design and construction. Where, owing to bad pavements or extremely rough road conditions, the need for a shock-absorber is felt, the company will furnish a shock-absorbing fork. Except that it is straight, the main member does not differ in construction from the regular twin fork. The auxiliary is of large Shelby tubing. The cushion springs are long and large, with a recoil spring provided to absorb reaction and all vibrations. The rocker plates have a wearing surface of the full width and sidesway is eliminated.

There are no radical changes in the 3½ h. Wagner motor, which has given such satisfaction during the past season. All Wagner motors are single cylinder, vertical type, 3¼ ins. bore, 3¼ ins. stroke, and 26.963 cylinder capacity. The cylinder head and cylinder are cast separately from the best grade of gray iron. The cylinder is secured to the crank case by means of four vertical studs surmounted by nuts. The cooling flanges are deep and very thin, insuring perfect radiation. The piston, which is as light as is consistent with strength, is ground to a perfect fit and fitted with two rings, also ground on three sides. The "I" beam connecting rod is drop-forged. The fly wheels are large and well balanced. The crank case is of aluminum alloy, light, strong and oil-tight. Compression relief valves are provided. All the bearings are large and wide and are bushed with phosphor bronze. The gears and their shafts are in one piece, turned from solid stock, ground and tempered. The valves are of large diameter and made from a special quality of nickel-steel. The exhaust valve is reinforced at the neck, the point of greatest strain. The inlet valve is automatic, the head being large, the spring tension very light, and the lift short. The inlet is directly over the exhaust valve, so that the cool gasoline vapors passing through the valve chambers keep the valve cool, preventing overheating and burning out. The spark plug is located in the center of the head.

The Wagner automatic carbureter, with which all models are equipped, is extremely simple, flexible and economical. The float chamber and cup at the bottom are integral, being retained by a nut of convenient size to be handled by an ordinary wrench. A tickler is provided to furnish flushing, which is necessary, however, only in extremely cold weather. The float requires no adjustment, as the gasoline level is carried in the chamber quite low enough to eliminate trouble from vibration, yet high enough to spray the nozzle and make starting easy. The float valve is fully protected and easily accessible for grinding or to remove any sediment from the seat. Gasoline adjustments are independent for both low and full throttle position, permitting a fine regulation for all running speeds. A strainer with removable gauze is provided directly in the gasoline feed line.



Wagner Single Cylinder Magneto.

Tranmission on all models is by ⅞ ins. 28 deg. V. rubber belt. These belts are manufactured from a mixture of soft rubber with a powerful canvas core. Before vulcanization of the belts, the canvas core is thoroughly stretched out by a special process, and in its finished state has practically no stretch. The batteries, three in number, are carried in a watertight case on the under side and securely clamped to the rear forks. Standard No. 6 dry cells, commonly known as the telephone battery, are used, and these may be obtained of any dealer in electrical or auto supplies, or in the smaller towns of the local telephone company. All connections are in sight and easily accessible. The cells may be tested and connections inspected without removing them from the case.

A Herz high tension magneto is supplied where this form of ignition is preferred. The magneto is mounted on a platform securely bolted to the crank case and occupies a position in the rear of the cylinder, where it is thoroughly protected from mud, dust or water, and from possible damage or disarrangement in the event of a fall. The magneto shaft is mounted on ball bearings and is driven by a train of hardened gears enclosed in an oil-tight and dust-proof aluminum case. Lubrication within the crank case is by splash, the oil being fed to the tank by means of a vacuum force pump. The pump handle is located on the top of the tank, within easy reach of the hand, and there are no valves to open; at one stroke the pump fills automatically and the charge is forced to the crank case. The force pump will be regular equipment on all models, but when specified automatic sight drip feed will be furnished as an option without extra charge.

Speed is entirely controlled by a ball and socket double grip, twist-of-the-wrist system, which has proven so satisfactory on account of its extreme simplicity and durability. A half turn of the grip gives full range of spark or throttle and there are no hidden wires to break or stretch. The working parts are few and outside of the bar, but protected by the bars in such a manner that they cannot be affected in case of a fall.

On the battery model the left grip controls the spark, the exhaust lift and the automatic cut-out switch, with throttle on the right. On the magneto models the left grip controls the spark, and the right the throttle and exhaust lift.

E. F. HILTON, who resigned, has been succeeded in the management of Morgan & Wright's New York branch by Wilber Hobbs.

IF there is a temperature of 350 degrees in the cylinders, there will be, supposedly, the most successful conversion of gasoline into power.

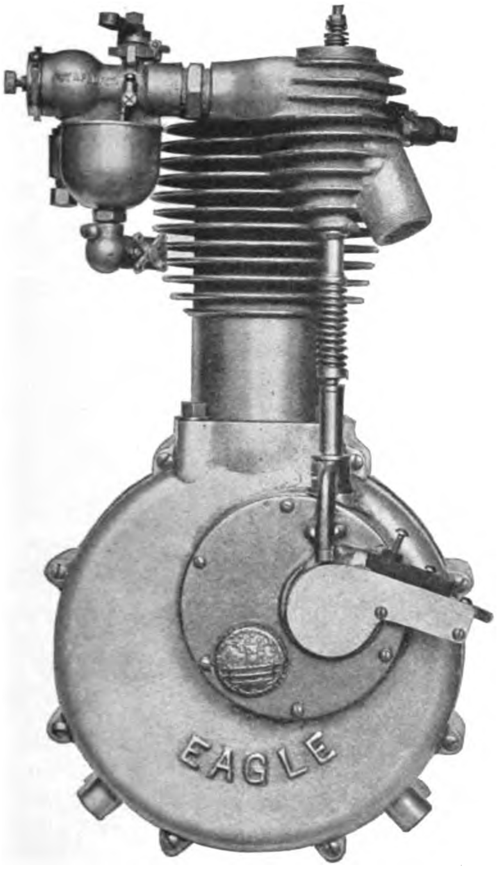
THE 1910 SINGLE CYLINDER EAGLE.

THE Eagle a staunch machine, is manufactured by the Eagle Motor Works, 1111 East Franklin avenue, Minneapolis, Minn. The cylinder is of one piece, cast from a special grade of iron, and provided with large flanges to give ample cooling surface. The bore is 3¼ inches and the stroke 3½ inches. The 1⅝ exhaust valve has a cast head with a steel stem. The intake valve, also 1⅝ inches in diameter, is located directly above the exhaust valve, while the spark plug is fitted in the side of the valve chamber.

The fly-wheels are 10 inches in diameter and the main shaft runs in long phosphor bronze bearings. The connecting rod is made of steel and the crank case, of aluminum, is brightly polished and held together by nine bolts. Oil is injected into the case by a force pump, which has special leads to all bearings. A cup and groove take up the oil from the pulley bearing and return it into the crank case by suction, thus keeping the driving pulley free from oil.

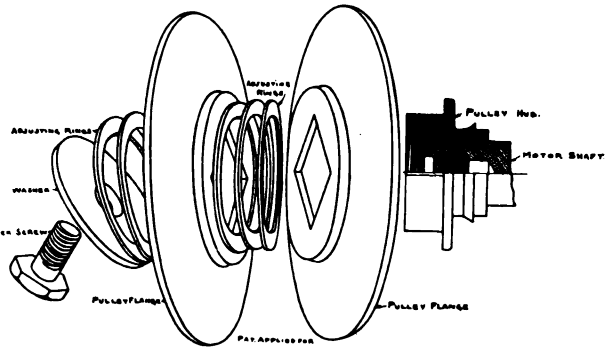
The timer is operated by means of Bowden wire from the right hand grip, while the left hand operates the throttle by the same means. A Shebler automatic carbureter is used. The front fork is of new design and very strong in all its parts. It has two springs, one on each side, held by means of bolt studs through the fork end, clamping the springs to the same. Ratchets are provided on the spring and fork ends to allow adjustment. The outer ends of the spring have a bearing in the arms between the fork and the wheel hub. These arms are made with safety stops. The front hub is provided with a one-half inch axle, which holds the arms rigid, so that the wheel will not pull sideways when a side car is attached. Means are provided to stretch the belt independently of the chain. The motor is fastened in the loop by two clamps and a clamp-bolt in the center bar, and can be easily removed without disturbing the tank.

The frame is made of 1⅜ inch tubing, 10-gauge near the head, 16-gauge in the loop and 18-gauge in the seat post.



The Eagle Power Plant.

NEW MERKEL-LIGHT PULLEY.



AMONG the many improvements which appear in the 1910 Merkel-Light line is an entirely new adjustable motor pulley. Its simplicity of construction is particularly noticeable in the accompanying illustration. The pulley is designed to be used in connection with a V belt of 28 degrees. The two pulley flanges are interchangeable, being identically the same; in the center of each there is a square hole which permits their being placed over the square end of the pulley hub, which is attached to the main shaft of the motor. In order to lower the ratio of gear the two flanges are brought further apart, and to increase the gear they are drawn closer together. This is accomplished simply by inserting a number of washers about 1/16 inch thick, and when the pulley is adjusted to obtain the highest ratio of gear, the outside flange is removed and all the adjustable rings are taken from between the two flanges, which permits both of these pieces to come together. With the pulley adjusted in this manner all the rings are held in the concave side of the outer pulley flange.

⁂

BUFFALO'S MOTOR SHOW.

"GARBED in gold and Oriental splendor embodying all that is unique, beautiful and dazzling in artistic brilliancy" (well, that will be about all of that), the Buffalo Third Annual Sportsman's Show is scheduled for March 21 to 30. Although called a Sportsman's Show, the term is general and the main thing will be boats and, this year, motorcycles. In fact the Buffalo Launch Club, under whose auspices the show is being held, will specialize on the motorcycle end. It ought to be a very good exhibition for the local folks. For all information apply to D. H. Lewis, 760 Main street, Buffalo, N. Y.

⁂

MOTORCOPS IN DETROIT.

THE motorcycle squad of the Detroit Police Department, known as the "Flying Squadron," comprises one sergeant and seven patrolmen. They are located at the central police station and work in shifts, so that two or more are on duty all the time. The machines have been in service all winter, and the heads of the department declare that they are giving entire satisfaction. Recently a burglary call was received early in the morning. A night officer reached the place in a few moments and succeeded in effecting the arrest of the would-be wrongdoers.

⁂

THE Buffalo *News* contained quite a blast on motorcycle growth supplied by L. J. Kellner, manager of the Haverford Cycle Company. This firm maintains headquarters and handsome salesrooms at 763 Main street, with branch houses in Washington and Philadelphia, and they have plans for another house in Detroit. They handle motorcycles and motor accessories.

TIMELY TOPICS

FROM A SUBURBAN NEWSPAPER.

THE Jefferson county farmer, says a Texas paper, never particularly friendly to the chauffeur, only smiles at the motorcycle man, for whom he does not have to turn out. As a rule the cycler does not require it, nor does he give time to a farmer to do this. Possibly cyclists in Jefferson county do not exceed the speed limit, which is eighteen miles an hour by State law in the county; but there is a smooth stretch of road between Beaumont and Port Arthur over which these two-wheelers are sent like a shot out of a gun.

When one is coming a teamster does not have time to give half the road nor even cluck to his horses. The first intimation he has of the approach of an autocycle is a series of detonations sounding like a procession of heathens driving the devil out of Chinatown by the explosion of firecrackers, then a black spot looms up about three hundred yards ahead, a vague, indefinite blur swings out of the road on the off side of the team, there is a smell of gasoline and burnt cylinder oil and the chaise of Satan is heard in the rear half a mile away. All this happens in about two minutes, and covers an approach from the front.

When the cyclist comes up from behind the teamster never knows it until the machine and its rider are blended into one tremulous, meteoric blot on the horizon and the off-wheeler, paralyzed at the detonating phantom, is threatening to jump through his collar and make a run for safety. Possibly these autocyclists who go the pace on the shell road between Beaumont and Port Arthur do not exceed the speed limit, but they certainly key their instruments up to an octave above concert pitch.

* * *

A RIDING MINISTER.

MILWAUKEE, Wis., Jan. 12.—The Rev. Ray McKaig, of the Epworth Methodist Church, is the only minister in Milwaukee, and possibly the only one in the entire country, who makes his pastoral calls on a motorcycle. Mr. McKaig says that a motorcycle is invaluable for a preacher in city or town, as it saves time and money. He has had his machine several years and estimates that he has traveled more than 5,000 miles.

Before coming to Milwaukee he says he used a motorcycle with splendid results in a Minnesota town. He could make his circuit of preaching places with such speed that the benediction was hardly pronounced in one place before the pastor was five miles away announcing a hymn in another church. He rigged up a tandem attachment for his wife and allowed his boy to ride in front.

The pastor believes that nothing can equal the enjoyment and exhilaration of the motorcycle. He says: "The preacher who vitalizes an audience must devitalize himself. On Monday a listless indifference settles on him. To read is only to star gaze. To visit is only a bore. To study is only to stagnate. Own a motorcycle. How one's nerves tingle on a hot day, fanned by a stiff breeze!"

* * *

R.-S. INVALUABLE TO CANTON POLICEMAN.

A LETTER was received recently by the Reading-Standard Company from Officer P. W. Riffle, of the Canton, (O.) police. Four and a half months ago Riffle was placed on a motorcycle, and since that time he has been called upon to ride 2,689 miles, answering special calls to the number of 882 and making 264 arrests. He has incurred no expense except, of course, for fuel and oil.

NEW YORK SOLONS MAY ENACT NEW LAWS.

AMONG the bills recently introduced in the New York Legislature are three designed to amend existing motor vehicle laws. Each of them relates to registration and the licensing of drivers, and in each case fees much larger than those now charged are provided for. The Bates Bill makes the registration fee $5 on motor vehicles. which evidently includes motorcycles, of less than 20 horse power. The registration number must be displayed in the rear and must be visible sixty feet away. Reckless driving is made punishable by a fine of not over $200 or not more than six months' imprisonment, or both. Assemblyman Dana's bill establishes a fee of $10 to be paid by the owner of any motor vehicle with a horse power rating of thirty or less. The third measure is that introduced by Assemblyman Callan. This specifically provides for a motorcycle license fee of $2. At present, owners of motorcycles require no license and pay no fees in the Empire State.

* * *

A SCHOOL BOY'S RECORD ON A WAGNER.

AMONG the riding records which deserve to be written on the 1909 slate is that of young Cassius Horner, of Brighton, Ind. Horner got a Wagner early in September, 1908, and has used in daily to ride to school, six miles distant, in the town of Lima. He has now ridden early 5,000 miles without a puncture and only one accident, which was caused by his trying to ride with his hands off the handle bars. Although he was going twenty miles an hour at the time, the only damage was a sprung rim and a broken pedal.

* * *

OVINGTON RETURNS FROM EUROPE.

FRIENDS of E. L. Ovington will be pleased to learn that he has returned from Europe in order to serve as chief engineer for the managers of the Philadelphia Electrical Show. In a recent issue of the Philadelphia North American there is a story of a series of photos taken by Ovington in mid-ocean. These pictures are remarkable because of the fact that they illustrate in a graphic manner the rescue of a sailor who had been swept overboard during a storm .

* * *

EPH BALL VIRGINIA COMMISSIONER.

EPH BALL, of Norfolk, has been notified of his appointment as F. A. M. Commissioner for the State of Virginia. Mr. Ball is the pioneer rider in Virginia and is doing great work towards increasing interest in the sport among the athletic young men of that State.

* * *

ENGLISH RIDERS TO COMPETE HERE.

ACCORDING to information from the other side, C. R. Collier, H. A. Collier and Harry Martin, well known British riders, intend to cross the ocean in order to compete with the leading professionals of the United States.

* * *

The Colorado Automobile Club has decided to send out wagons on the Denver streets after every wind storm to pick up broken nails, glass, etc.

* * *

Within the last two years the Chicago Motor Club has put up 290 signposts on which have been tacked 787 direction signs at a cost of about $2,000

IF CERTAIN FARMERS WERE TO FRAME A MOTOR VEHICLE LAW.

MARTIN LUND, one of the local agents for the Thiem Manufacturing Company, is doing some excellent advertising by circulating a series of "Rules of Country Roads" as adopted by a fictitious Farmers' Anti-Motorcycle Society. If Mr. Lund is as good a salesman as he is a humorist, he must be doing wonderfully well with the Thiem. However, here is his conception of the point of view of agriculturists who are prejudiced against the motor-driven two-wheeler:

(1.) Upon discovering an approaching team the motorcyclist must stop off-side and cover his machine with a tarpaulin painted to correspond with the scenery around him.

(2.) In case a motorcyclist makes a team run away, the penalty shall be $50 for the first mile, $100 for the second, $200 for the third, and doubling thereafter until the said team stops, in addition to the usual damages.

(3.) The speed limit on country roads this year will be secret, and the penalty for violation will be $10 for every mile in excess of said limit.

(4.) On approaching a corner where he cannot command a full view of the road ahead, the motorcyclist must dismount not less than a hundred yards from the turn, toot his horn, ring a bell, fire off a revolver, halloo, and send up three bombs at intervals of five minutes.

(5.) Motorcycles and riders must be seasonably painted, that is, so that they will merge with the pastoral ensemble. They must be green in Spring, golden in Summer, red in Autumn, and speckled white in Winter.

(6.) A motorcyclist running on country roads at night must send up a red rocket every mile and wait ten minutes for the road to clear. He may then proceed carefully, blowing his horn and shooting sky rockets.

(7.) All members of the society will give up Sunday to chasing motorcyclists, shooting and beating them, making arrests, and otherwise discouraging country riding on that day.

(8.) In case a horse will not pass a motorcycle, notwithstanding the scenic tarpaulin, the rider must take his machine apart as rapidly as possible, conceal the parts about his person, and walk down the road.

(9.) If a motorcyclist should stop in a village, he must have full knowledge of his motorcycle and enlighten the usual crowd as to why his machine is the best of all.

(10.) Agents of Thiem Motorcycles can easily convince you why their motorcycles are the best, and are exempt from these rules.

(1.) Ride a Thiem motorcycle and stay in front.

CLINTON E. BISSELL and Nelson B. Ober, of Bellows Falls, Vt., have been appointed by Vice-President Wilber as members of the Legal Action and Competition Committees, respectively.

CAPTAIN A. M. McNab, stationed at Manila, P. I., advises us that there are about a score of Indians in use in the several bureaus of the civil government there, and that the number of riders is gradually increasing.

Harley-Davidson

Clem and Langford, Harley-Davidson Riders Who Won First and Second Places in Redlands (Cal.) Hill Climb.

QUESTIONS & ANSWERS

ALUMINUM SOLDER.

OUR readers have been very generous in their responses to a recent inquiry for the names of concerns which manufacture aluminum solder. Among such are the following: Janney-Steinmetz & Co., Fourth and Market streets, Philadelphia; Aluminum Solder Company, Oswego, N. Y.; International Solder Company, 102 West Fayette street, Syracuse, N. Y.; Aluminum Foundry Company, Manitoc, Wis.; Hartman Aluminum Solder Company, 134 West 49th street, New York; Standard Washer Manufacturing Company, Newark, N. J.; E. Blatchford, North Clinton street, Chicago; Cleveland Black Company, 1173 West 11th street, Cleveland, O.; C. F. Eberhard, 25 Helen street, Buffalo, N. Y.; Rochester Promoting Company, Rochester, Ind.; Aluminum Company of America, 158 Lake street, Chicago; Electro Importing Company, 84 West Broadway, New York; Clum & Atkinson, Rochester, N. Y., and A. W. Brush, Glenrock, Neb.

Soldering aluminum is rather a difficult job and depends more on the workman than on the solder. It is more satisfactory to purchase the solder than attempt to make it. Common zinc can be used, but it is not of great strength. Tin more nearly resembles aluminum in color, is stronger than zinc, but does not work so easily. A little phosphorus is added to the pure tin as the basis of most aluminum solder. The principal trouble in soldering aluminum is that it carries off the heat too fast and cools the soldering bit and the solder before the latter takes hold. Further, aluminum oxidizes instantly on exposure to air.

To make a good job of it it is necessary to drop some melting solder on the surface already cleaned and with the sharp point of the soldering bit scrape the scale loose, which being done on the molten solder on the point of the bit permits the solder to at once wet the surface of the aluminum and "take." Continue this rubbing until both the surfaces of the aluminum to be joined together are thoroughly coated or tinned, after which the parts may be brought together with or without flux in the usual manner. Some workmen get results from nitrate of silver, others use resin, still others tallow or ordinary tin chloride. If the casting is large care must be taken to heat it plentifully with a blow pipe. It should be heated evenly all over, because heating at one side or in the center, neglecting the other parts, may warp it out of shape and spoil it. The same care should be exercised in letting it cool slowly, lest sudden cooling contract one part too fast for the others. If the shape or surface of the metal is such that it cannot be cleaned readily by scraping or rubbing with the soldering bit, it can be cleaned by dipping it into a solution of nitric acid in three times its bulk of water wth a small amount of commercial hydro-fluoric acid, say 5%, to cause action on the surface of the metal as denoted by the formation of gas bubbles. Rinse the aluminum after the acid bath and dry in hot sawdust, when it will be found nearly free from scales and will often take the solder as the bar is rubbed over the surface of the hot aluminum.

Experiment a little on some scrap castings until you get acquainted with the heat and familiar with the solder. Clean copper bits are ordinarily used, but these alloy with the tin and rough up quickly. Nickel bits are much better in this respect. With the blow pipe almost anything will serve as a bit, the end of a file being quite handy.

For brazing, common borax is ordinarily used. Lamp borax contains considerable water, which causes it to bubble up badly. This can be put in a ladle or crude pan of sheet iron and calcined or baked until the bubbling stops, when it may be easily powdered and remains in place much better. Powdered borax is handy to use, while boracic acid, mixed with one-quarter its weight of baking soda, is preferred by some. Brazing cast iron is by far a more difficult job, and it is customary to use a flux which will change the nature of the iron surface slightly. These brazing compounds may be purchased.

* *

HIGH GEAR AND MAGNETO.

KINDLY inform me if magneto ignition is practical for a twin motor with a bore of 3½ and a stroke of 4 inches, geared at 3 to 1. Also state a way to prevent the rear cylinder of a twin getting too much oil.

Chicago. RICHARD TRAUB.

There is no question that a magneto would give satisfactory service under the conditions you name. Magneto ignition is used on many racing machines geared at a ratio as high as the one you give. Today, magneto ignition meets every reasonable requirement in a motorcycle.

In regard to a plan to prevent the rear cylinder of a twin getting too much oil, the solution would depend upon the design of the engine. On many machines there is a plate between the cylinders and crank case, each drilled with a center hole for the connecting rod, and small openings to allow the lubrication to get into the cylinder. If your mount is of this design the difficulty you have may be disposed of by stopping up some of the holes in the plate which separates the rear cylinder from the crank case, and also by drilling one or more holes in the similar plate located between the crank case and the front cylinder. If there is simply an opening the width of the cylinder itself, you may insert in the front a plate, with a connecting rod opening and one or two oil holes, at the point where the cylinder joins the case.

* *

LIGHT LADIES' MOTORCYCLES.

WE very often have inquiries for ladies' machines, one man recently writing to inquire if he could not purchase a motorcycle weighing less than 100 pounds, for lady's use. In reply to this inquiry we stated that we knew of no motorcycle weighing less than 160 pounds suitable for women. The N. S. U. Company, New York City, advise us that their 1910 2 h. single and 3 h. twin roadsters are particularly adapted for ladies' use, although they are not of the drop frame type. The 2 h. machine weighs 108 pounds and the 3 h. twin 125 pounds. The N. S. U. Company state that a number of ladies are already riding these machines with entire satisfaction. While the absence of the drop frame is somewhat of a drawback the light weight more than compensates.

* *

FITTING A SIDECAR.

E. L. DAY, Syracuse, N. Y.—It would be possible to fit an M. M. sidecar to the machine you mention, but alterations, probably costing from $15 to $20, would be necessary. An N. S. U. sidecar could also be fitted at about the same cost for making the machine and the car properly conform. Unless you are an expert mechanic, you could hardly do justice to a task of this character.

* *

BROWN & BARLOW carbureters are obtainable in this country from the Great Western Manufacturing Company, of La Porte, Ind., who are sole American agents for the British manufacturers.

REGARDING COMPRESSION AREA.

HOWARD S. WITMER, Detroit, Mich.—With a piston displacement of 30.50 cubic inches the compression area ranges from one-quarter to about one inch. There is no set rule regarding this matter, except that it is not advisable for anyone but an expert to attempt to change to any degree the compression of a motor. The difference between a slow speed and a high speed engine lies in the fact that the latter has a smaller compression area and lighter fly-wheels. The present day tendency is in the direction of slow speed engines. Experiments with a view to increasing the compression area may be conducted by fitting a circular metal plate between the crank case and the cylinder wall. This is not likely to prove advantageous, however, and we would therefore advise against it. On the other hand, the compression area may be reduced by cutting down the cylinder, but that is dangerous, as a number of machines would not permit of such a reduction without causing more or less injury to the motor.

* *

WHEN CLEANING WITH PARAFFIN.

R. W.—It is not advisable while cleaning the cylinder and crank case to run the engine on its own power if the interior is flooded with paraffin, especially when the bearings are at all a good fit, as seizure would be likely to occur. If, however, you can start the engine by jacking up the machine and turning over the back wheel, there could be no harm in running it for about five seconds.

* *

J. H. PARKINS, president of the Wilkes-Barre organization having charge of the Giant's Despair Hill Climb, has announced that the club would apply to the A. A. A. Contest Board for a sanction to conduct the event on Saturday, June 11.

LEARN BY ANOTHER'S EXPERIENCE.

I WOULD advise riders not to put cylinder oil and Never-leak in cans of the same appearance. I have had the misfortune of nearly ruining two machines because of picking up the wrong receptacle. On one occasion I had to use a block and chain to remove the piston. P. L. R.

* *

TO MAKE CRANK CASE OIL-TIGHT.

V. L. BAKER, Suffolk, Va.—Leakage of oil from the crank case may be stopped by inserting brown packing paper, liberally shellacked, between the crank case joints. Ordinary paper, painted several times with red lead, may also be used.

* *

MOTOR-BICYCLE ATTACHMENT.

C. A. SHAW.—No such device as the one to which you refer is manufactured in this country. One has recently been patented in England, however, designed to attach a bicycle to a motorcycle, but it has not yet demonstrated its practical value.

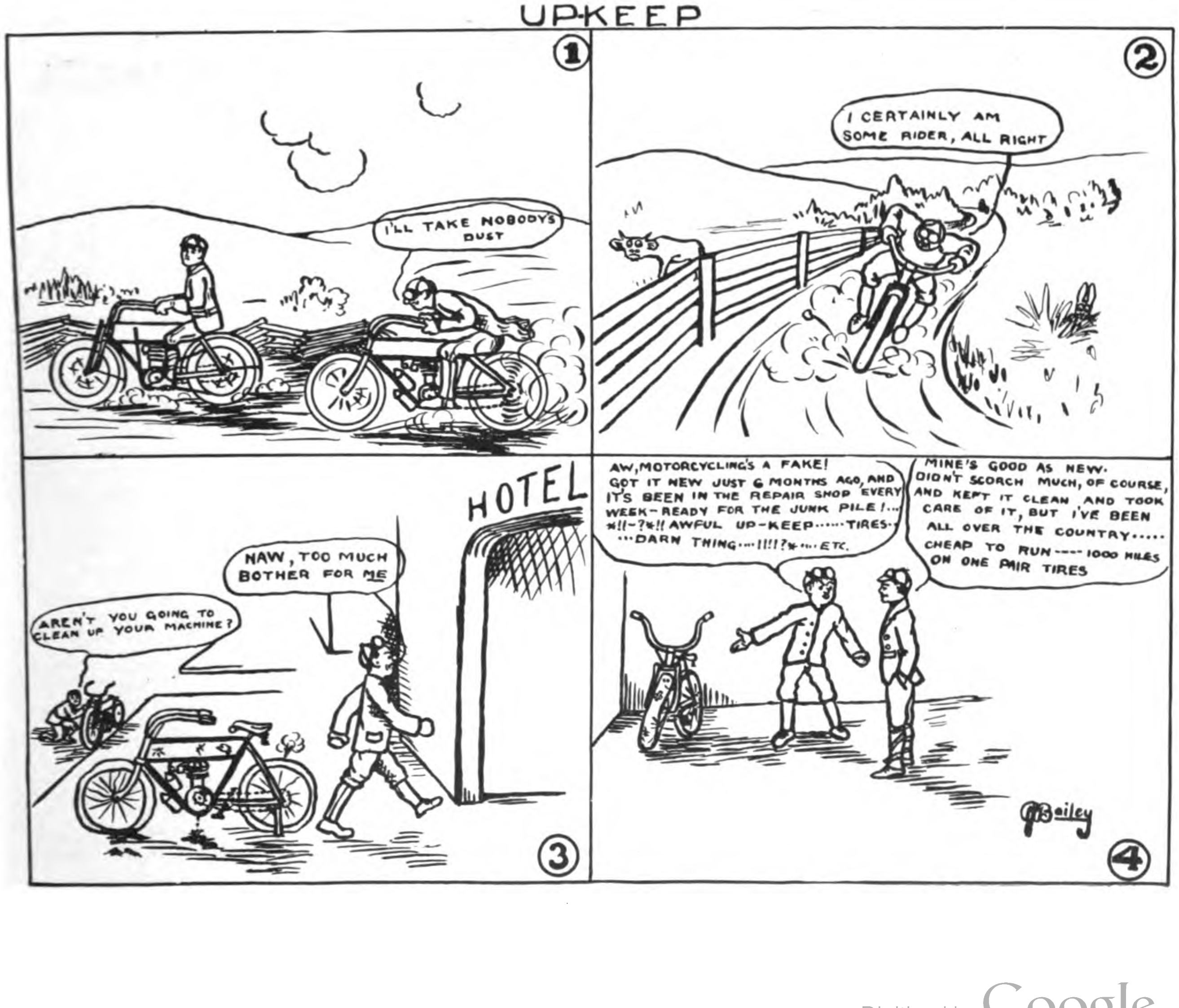
* *

FOUR-CYLINDERS IN AMERICA.

GORDON DARLING, Montreal.—The only four-cylinder motorcycle manufactured in this country is the Pierce, built by the Pierce Cycle Company, of Buffalo, N. Y. The four-cylinder F. N. is imported by H. H. Wilcox, 159 Green street, Jamaica Plains, Mass.

* *

BURT L. GULLERAT, Canastota, N. Y.—Send your speedometer to the American Ever Ready Company, 304-322 Hudson street, New York.


UPKEEP
①
I'LL TAKE NOBODYS DUST
②
I CERTAINLY AM SOME RIDER, ALL RIGHT
HOTEL
NAW, TOO MUCH BOTHER FOR ME
AREN'T YOU GOING TO CLEAN UP YOUR MACHINE?
③
AW, MOTORCYCLING'S A FAKE! GOT IT NEW JUST 6 MONTHS AGO, AND IT'S BEEN IN THE REPAIR SHOP EVERY WEEK—READY FOR THE JUNK PILE!... *!!-?*!! AWFUL UP-KEEP...... TIRES.. ...DARN THING....!!!!?*.... ETC.
MINE'S GOOD AS NEW. DIDN'T SCORCH MUCH, OF COURSE, AND KEPT IT CLEAN AND TOOK CARE OF IT, BUT I'VE BEEN ALL OVER THE COUNTRY..... CHEAP TO RUN---- 1000 MILES ON ONE PAIR TIRES
GBailey
④

TWO MODELS OF THE 1910 MINNEAPOLIS.

THERE will be two regular Minneapolis models for 1910, designated Model K and Model L. Both employ the Thor "big 4" motor with an internal gear in the base. There will also appear, late in the spring, an 8 h. twin cylinder which, however, will be sold only as a racing machine. Model K is the two-speed machine, and Model L has a direct drive. The two-speed and free engine gear for 1910 remains practically the same as the 1909 gear, though perfected in detail. This gear has acquired a reputation for durability, simplicity and constant efficiency without loss of power in operation. The fact that it is enclosed in an oil tight case, protected from dirt and grit, assures long life to its working parts. A new control lever, small and efficient, is an improvement for 1910. It is located on the top bar in a convenient position before the rider. It is connected to the shifting lever of the transmission gear by a piano wire, operating through a closed coil spring, the same as used on a grip control.

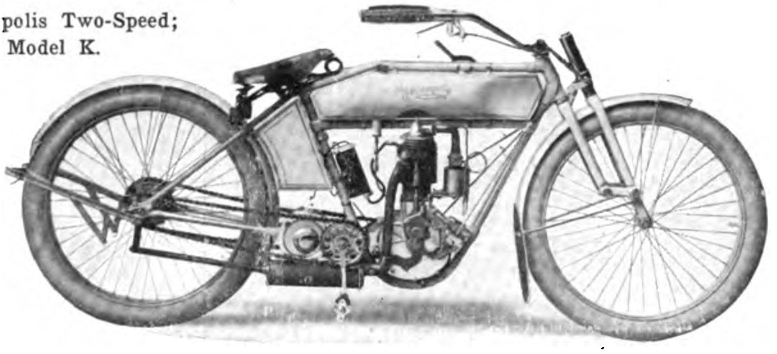
The most marked improvement for 1910, however, appears on Model K in the form of an independent friction clutch on the motor. This clutch is operated by a lever on the handlebar and may be released slightly or completely by the mere pressure of the fingers of the left hand. This does not interfere with the throttle control in the least, which is on the same side of the bar. The two-speed gear has a neutral, or free engine position, and the new clutch provides for another distinct free engine.

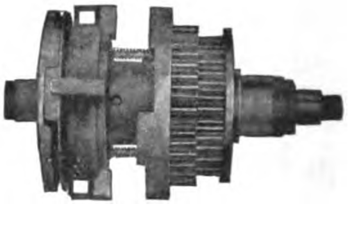
Further changes in these new models are noticeable in a low frame, new tank design, giving a capacity of two gallons of gasoline and three and one-half quarts of oil, new battery case and tool box having hinged cover, and a large muffler with a long tube leading out to the rear, making it absolutely silent. The cut-out is placed on the rear end of the muffler and is operated by the foot.

The specifications in brief are as follows, applying to both the two-speed model and the direct drive machine:

Thor 4 h. motor with internal gear; Thor carbureter, double grip control; piano wire; right grip controls spark advance and lifts exhaust valve; left grip controls throttle; chain drive, ¼-in. by ⅝-in. pitch roller chain with the Minneapolis change speed gear on countershaft; independent clutch on motor controlled from handlebar; loop frame, with the approved double horizontal top bar; upper bar dropped so as to give low saddle position; upper bar 1⅛-in., 16-gauge; loop, 1⅛-in., 14-gauge; rear forks and stays, ¾-in., 14-gauge; Minneapolis spring fork; new system of triple spring cushioning; tank of heavy copper; gasoline capacity two gallons; oil capacity, 3½ quarts; force pump in tank; battery, two No. 6 dry cells, Connecticut or Pfanstiel coil; Bosch magneto, $25 extra; wheels, 28-in., 40 spokes front, 40 rear, very heavy; extra wide Thor coaster hub; Thor front hub with knockout axles; G. & J. or Morgan & Wright, 2½-in. tires; Persons or Troxel saddle; deep green, gold striped finish; rough-rider rubber grips; standard No. 3 motorcycle pedals; tool bag and complete kit of tools.

Minneapolis Two-Speed;
Model K.





Two-Speed and Free
Engine Device.

SPEEDOMETER FITS SPRING FORKS.

ELSEWHERE in this issue will be found an advertisement of the 1910 Standard speedometer, manufactured by the Standard Thermometer Company, 65 Shirley street, Boston, Mass. These speedometers include a trip and season odometer without extra charge, and the purchaser has the choice of either 60 or 80 dials at the same price. The design has been improved, particularly in that the new Standard speedometers are so made that they may be fitted to 1910 spring fork machines, including the Indian, Merkel-Light, R.-S., Thor, Excelsior, Curtiss, Harley-Davidson, Yale, M. M., Marvel, Royal, New Era, N. S. U., Greyhound, Pierce, Racycle, Emblem, Reliance and S. D. M. This is a feature which will be appreciated by owners of spring fork machines.

* * *

GREYHOUNDS MADE FINE IMPRESSION.

THE Greyhound people report a very satisfactory experience at the New York Show, both in the matter of business actually closed and that of general impressions produced by their new models, which seem to have made a real hit with the motorcycle public. Of course Greyhounds will be seen at the Chicago Show, and a large and fat line of business is expected at that time.

* * *

J. M. SHACKLEFORD has been engaged by the Empire Tire Company, of Trenton, N. J., as manager of its uptown branch at 73d street and Broadway.

GREYHOUND AGENCY ON PACIFIC COAST.

THIS is the season when things are happening in trade circles, and in this connection it is stated that George E. Hengerer, with headquarters at Los Angeles, has secured the general agency for Greyhound motorcycles for the State of California. Mr. Hengerer is admirably fitted to look after the Greyhound interests and has contracted for a very substantial number of the 1910 model, the first full carload of which will go forward in the near future.

* * *

HANDSOME AND INTERESTING.

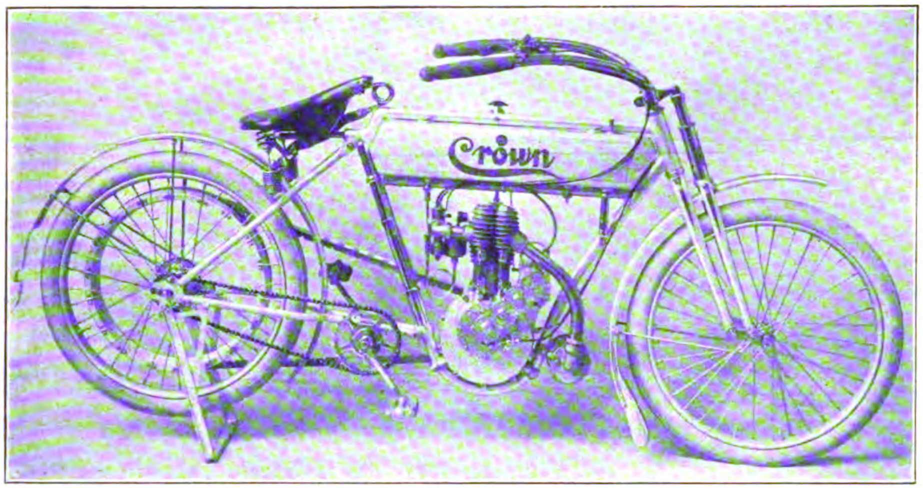
ALL about the Empire tires for 1910 has been placed between a beautiful cover, stamped with a red and gold coronet, which is the Empire Tire Company's trademark. Besides the Empire motorcycle tires it contains cuts of the various specialties of the company, such as tire protectors, covers, pads, patches and the usual tire accessories. If you write to the company at Trenton, N. J., they will forward it; or you can ask at any of their branches for a copy. They have them in every big city.

* * *

AT a banquet held on Jan. 20 and attended by twenty riders, a club was organized in Columbus, O. It will be named the Central Ohio Motorcycle Club. Those who are promoting it hope to have 100 members in the very near future.

FIT FOR A KING

The Crown Motorcycle



We have had it under way for a long time but now that we are absolutely sure that it is right, we are prepared to hear from agents and riders concerning the most thoroughly modernized and most beautifully finished machine ever offered.

BALL bearing motor, 3¼ x 3½ inches, developing more than 4 horsepower.

V-BELT transmission, with Eclipse free engine pulley; magneto ignition.

IMPORTED Brown & Barlow carbureter.

LOW double bar frame; spring fork; 58-inch wheel base; 26-inch wheels; Corbin band brake. Fuel capacity, 2½ gals. gasoline; 1 gal. oil. Feed pump with glass indicator; strainer in gasolene line.

WIDE mud guards. Stand. Large tire pump.

It is impossible for anyone to build a better motorcycle or offer greater value; we have gone the limit.

Write us and let us show you the way to genuine and unadulterated pleasure and satisfaction.
GOOD TERMS FOR GOOD AGENTS.

Just the Proposition for "Live Wire" Dealers.

GREAT WESTERN MANUFACTURING COMPANY, Laporte, Ind.

G&J

The Result of Over Six Ye
in Motorcycle
What It Means to

You take no chances when you specify G & J Motorcycle Tires and Double Clincher Rims. This equipment has given such excellent service year after year that it has become universally recognized as the highest standard, and unequalled by any other Motorcycle equipment on the market.

The G & J Motorcycle Tire is made from the choicest of high grade rubber, and it is put through slow, tedious, expensive processes tha develop its toughness and durability to th utmost. As a result, G & J Motorcycle Tire enable you to travel any road and any distanc with perfect confidence that you will not b held up or bothered with tire troubles.

The G & J Double Clincher Rim has prove so much more satisfactory than the old styl single clincher rim that it is now demande

G & J TIRE CO..

Get a Copy of ou

DETROIT—286 Jefferson Ave.
CHICAGO—1434 Michigan Ave.
NEW YORK—10 W. Sixtieth St.
SAN FRANCISCO—414 Van Ness Ave.
DENVER, COL.—204 Sixteenth St.
BUFFALO—912 Main St.
PHILADELPHIA—713 N. Broad St.
ST. LOUIS—4148 Olive St.
LOS ANGELES—1011 S. Olive St.

IRES

ırs Experience and Leadership
Tire Construction
the Motorcycle Rider

practically every experienced Motorcycle ler. It does not bend or dent as easily as single clincher. Its strength relieves a eat deal of the strain on the spokes, which events the wheel from getting out of gnment.

Another advantage of the construction of the uble Clincher Rim is the fact that the nips on the ends of the spokes do not interfere with the perfect seating of the tire in the channel of the rim. When tightening the spokes they often extend through the nipple and damage the tire—this trouble is also eliminated.

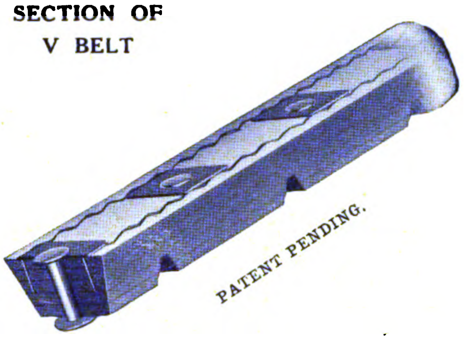
Remember—you can have this equipment by simply specifying it when you place your order. There is no extra charge or delay in shipment.

ndianapolis, Ind.

New Motorcycle Book

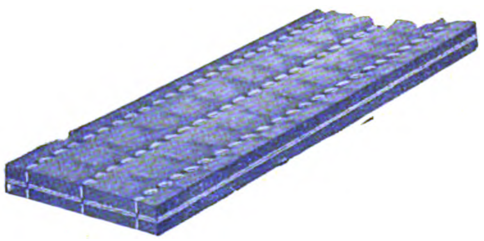
MINNEAPOLIS, MINN.—21 S. Second St.
OMAHA, NEB.—1608 Harney St.
BOSTON—110 Federal St.
PORTLAND, ORE.—326 Burnside Ave.
CLEVELAND, OHIO—1837 Euclid Ave.
PITTSBURG—Baum & Beatty Sts.
KANSAS CITY—1607 Harney Ave.
ATLANTA, GA.—35 N. Pryor St.
TOLEDO, OHIO—224 E. Superior St.

**SECTION OF
V BELT**


PATENT PENDING.

THE BEST MOTORCYCLE BELT

**SECTION OF FLAT
(NON-STRETCHABLE) BELT**



THE BEST MOTORCYCLE BELT

is one that will transmit the greatest percentage of power; that will not slip wet or dry; that is not affected by oil, grease, water, gas or climatic condition; and that will wear longer than any other belt.

These are nearly *ideal* conditions. Yet there is a belt that will meet *all* these requirements. It is the

SHOEMAKER MOTORCYCLE BELT

"V" or "FLAT" SHAPE

These belts are made of a leather that is, from a new method of tanning used, peculiarly well adapted for the making of Motorcycle Belts, as it is the strongest, most pliable leather known, and is not affected by *any* of the adverse conditions to which motorcycle belts are constantly subjected. This leather, together with the unique design and the reinforcements used results in the strongest and most satisfactory belt ever offered motorcycle users.

A booklet, fully describing the leather and showing how the belts are "built" will be sent on request.

Send for it today.

APEX BELTING CO.

**242 CHESTNUT ST.,
PHILADELPHIA, PA., U. S. A.**

READ THIS!

January 10, 1910.

APEX BELTING Co., Philadelphia, Pa.

Dear Sirs:—In regards to the Motorcycle belt I purchased of you last spring, would say that it gave *perfect* satisfaction. I adjusted it once about three weeks after putting it on and have not adjusted or done anything more to it since then. I have ordered a 1910 seven h. p. Merkel and would like your advice as to a belt for same. Send prices and, if possible, a sample. If there are any questions you wish to ask, I will be pleased to answer them.

Yours very truly,
(Signed) GEORGE R. BREY.
Rochester, New York.

CORRESPONDENCE

HUNTING DEER BY MOTORCYCLE.

IT was Christmas evening when I started on my hunt. After tuning up my machine, I shipped the jigger and my pack of hounds ahead by express. I boarded the train at Vicksburg, Miss., at 3 p. m., arriving in Silver City at 7 o'clock. Here, owing to poor railroad service, I was forced to put up for the night at Parker's "Hotel." The next morning at 4 o'clock Mr. Parker, with a lantern in one hand and a quart of some mail order house special in the other, escorted me to the depot, where he collected a one dollar hotel bill. I arrived at Isola just at daylight. Here I found my dogs and machine in care of Uncle Tex Bishop, an old darkey preacher to whom I had shipped the layout. While Uncle Tex was driving mule and wagon to the camp, eleven miles off, I, mounted on my machine, took a shorter route over a trail through an old cypress break that had gone dry. Of course, I was the first to reach the camp grounds, where we proceeded to pitch the tents and eat dinner. That disposed of, I rode a mile and a half down the swamp, while Harvey Alexander and Robert and James Jones walked to their respective stands. No sooner had I reached my place than the dogs "jumped" three deer. The music from the dogs getting louder every second, I came to the conclusion that the deer were going to come out about a mile east of me.

Opening my machine up to the limit, I tore along the tortuous trail like a cyclone. Suddenly I came upon the deer, Uncle Tex, his mule and the dogs, and in such haste that I could not dodge the bunch and handle the machine and my rifle at the same time. So I deliberately rode into Blue Lake, fortunately not very deep at the place I had chosen for my bath. The deer were so dumbfounded that they came to a standstill. Out in the lake, standing up to my waist in water, I leveled my rifle and plugged the old buck and fawn, while Uncle Tex was murdering the doe.

After bringing the game into camp, I invited the bunch to "strip" and help me seine out my machine, which I found needed only cleaning. I tried the fun the next day with even more success, avoiding the lake this time. Such sport as this is great when you learn how. We are soon going again, and I will then use my kodak as well as my machine and gun. S. C. RAGAN, JR.

Vicksburg, Pa.

⁂

ANALYSIS OF 1910 BRITISH PRODUCT.

I HAVE been looking over an analytical abstract of all the motorcycles exhibited at the Stanley Show held in England, and as the totals disclose some interesting facts and figures, I present them in the form of a synopsis.

There were 276 motorcycles displayed, and of these 172 were singles, 100 twins and four were four-cylinder machines; 166 were fitted with pedals and 110 were without them. The other features were as follows: Transmission, belt 227, chain 36, gear 13. Forks, 236 with spring forks and 40 rigid. Frame, 247 rigid and 29 spring. Valves, 176 with mechanically operated, 86 automatic and 14 two-stroke. Ignition, battery 7 and magneto 269. Gear, fixed 208, variable 68. In view of the fact that variable gears were only reckoned as such when the change could be effected from the saddle and without dismounting, these figures show a very rapid gain in the two-speed during the last twelve months.

Last year adjustable pulleys were classed under the heading of "variable gears," and while they were so in fact it is well known that they are seldom of more practical use to a rider than is a solid pulley, it being necessary to dismount to make the necessary change. Nearly every foreign machine has an adjustable pulley, the chief advantage of which is that a change of gear can be made as above stated; but it in nowise compares with the "variable," which permits two or more speeds with free engine at the option of the man in the saddle.

After having several years' experience with accumulators and batteries, the story of motorcycle ignition is most emphatically told by the 1910 models staged at the Stanley, and it points to the magneto as the last word on the subject. The rise of the mechanically operated intake valve is such as to make designers sit up and take notice. Among the eighty-six machines fitted with automatic intake valves, I doubt if there is one strictly new 1910 model so provided, excepting the popular and well known makes of "lightweights" rated at 1 h. to 2½ h.

Bangor, Me. E. M. ESTABROOK.

⁂

A JERSEYMAN'S UPKEEP EXPENSE.

MORE as a matter of curiosity than anything else, I kept strict account of all expenses in connection with the use of my 5h. twin Indian during 1909. While 3,950 miles is no great record, it is about the average for Saturday, Sunday and holiday riding. In any event, four cents a mile seems reasonable enough when it is considered that this includes the cost of the machine, clothing, speedometer, lamps, and several items not altogether necessary. The mileage per gallon of gasoline is actual and includes waste, evaporation, testing, etc. Here are the tabulated figures:

Repairs caused by actual wear.		
Rivets, bolts, nuts, and retainer	$ .50	
Lining for band brake	.50	
Two short drive chains	3.20	
Two compensating friction rings	.90	
Small engine sprocket	1.00	$ 6.10
Repairs caused by accident.		
Repairs to cyclometer	.25	
Bolt	.10	
Hand made nut for engine sprocket	1.00	
Vulcanizing rear casing	1.75	
Control nut and yoke	1.05	4.15
Outfit.		
Clothing, outfit, speedometer, luggage carrier, spares, etc		$31.15
		$41.40
Gasoline, 75 gals	15.29	
Oil, 3 gals	3.25	18.54
Depreciation (market value)		100.00
Total cost, machine included		$159.94
Total cost, machine included, per mile		.0404
Total cost of repairs and accidents, per mile		.0015
Total cost of gasoline, per mile		.0038
Total cost of oil per mile		.00082
Miles per gallon of gasoline		52.666
Miles per gallon of oil		1316.6
Average cost of gasoline per gallon		.2055

Jersey City, N. J. M. A. CORDNER.

PENNSY'S NEW LAWS.

EDITOR MOTORCYCLE ILLUSTRATED: I take the liberty of sending you an application blank for the registration of motor vehicles in this commonwealth. You will kindly notice the cost of registering motorcycles is $2.00 instead of $3.00, as you advised R. H. L. in Questions and Answers of last issue. The law regarding "jiggers" reads like this, viz. to wit, etc., etc.:

Section 2. Said application shall be made upon a blank provided by the S. H. D. It shall be signed by the owner and verified by oath (which will cost two bits). Proviso: *Non-residents* of this commonwealth *shall be exempt for a period of* 10 *days* if they have complied with the requirements of the State in which they reside. Provided further: That this privilege *shall not* apply to residents of States which do not extend the same privilege to residents of this State.

In regard to display of tags the 1910 law reads: Motorcycles under this act, in lieu of the specified tags, shall be required to have painted or attached on the rear mudguard of such motorcycle the registration number in letters and figures not less than three inches in height or less than three-eighths of an inch in width, which shall be displayed in some conspicuous color or design other than that which the said motorcycle is painted. But no metal sign shall be required in order that the letters and figures can be plainly readable. The manner of numbering said motorcycle shall be regarded as a compliance with the terms of this act, as though a tag or tags had been actually furnished and supplied by the S. H. D. Any neglect or failure to carry out the provisions or terms of this section as to numbers shall be construed and regarded as a violation of this act, with the same force and effect as though the provisions herein mentioned in regard to tag or tags had been violated. Very truly yours,

CHAS. K. MOOREHEAD.

Kittanning, Pa., Jan. 7, 1910.

* * *

FROM A TEXAS ENTHUSIAST.

TEMPLE, Tex.—We enjoy your publication very much in these parts. It pertains to one of the greatest sports of the day, and here in Temple the game is high and, using elevator slang, "Going Up." Up to last July the machines in these parts were the Indian, M. M., Excelsior, Armac and the Thor. About this time Mr. L. J. Arnold, Southern man for the Wagner Motorcycle Co., dropped in with the unheard-of Wagner and turned things upside down completely, established an agency and now there are twice as many "Wags" around as all the other makes combined. Besides the big bunch of this particular family of Wagners here, there are three in Granger, five in Georgetown, three in Bertram, five in Liberty Hills, and three more ordered and so on. Mr. B. F. Lewis is the present energetic agent here for this machine. He is one of those kind of fellows who could steal your coat and then put up such a spiel that you would give him your pants and vest also. They say he got this from Mr. Arnold. He keeps a new Wagner coming in every few days and has eight orders awaiting the 1910 models. Waco is about 35 miles away and they also have quite a bunch of machines there. Nearly all makes are represented and each is getting its share it seems.

MOTOR.

* * *

DUCK-HUNTING ON A MOTORCYCLE.

WE enjoy a rather novel kind of duck hunting down here in Texas. We strap our guns to our shoulders, fill our hunting coats with shells, mount our motorcycles, and in half an hour are blazing merrily away. We invariably obtain a nice bunch of game before we even have a chance to get uncomfortably cold. The roads in this part of the State are excellent, and as we are soon to have more of them, we anticipate a great growth of interest in motorcycling in this section of the country. PERCY L. ROLLINS.

Beaumont, Tex.

A HOME-MADE GARAGE.

EDITOR MOTORCYCLE ILLUSTRATED: I give you herewith a description of a motorcycle shelter I built, and I thought some points about it might be original, and that you may care to publish the same. Living in a flat in a large city, and having no bar or shed and but very little vacant space in the way of a yard, the writer contrived the following scheme for protecting his motorcycle against thieves and the elements: A large heavy packing box was secured for the nominal price of $1, and with a little alteration it was made to receive the machine. The outside dimensions are: 4½ ft. high, 7½ ft. long, and 2½ ft. wide..

One entire side forms the door, which is hinged at the bottom and lays on the ground when open, the machine being rolled across the door to get it in or out of the box. This method of hanging the door makes it easy to open and close, takes up hardly any space when open, and has no tendency to sag, which it would if hung at the end. The top and four sides were covered with roofing paper, one roll at 75 cents being sufficient, and a couple of heavy pieces underneath to keep away dampness completed the job. This box is absolutely dry and can be moved by an expressman, while a hasp and padlock make it safe. L. W. BANKER.

Toledo, O., Jan. 7.

* * *

HANDY USE OF A FLAT IRON.

WHEN troubled with a clincher tire which has a wrinkled protecting flap, take the casing off and use a hot flat iron on the flaps. The result will surprise you. P. B.

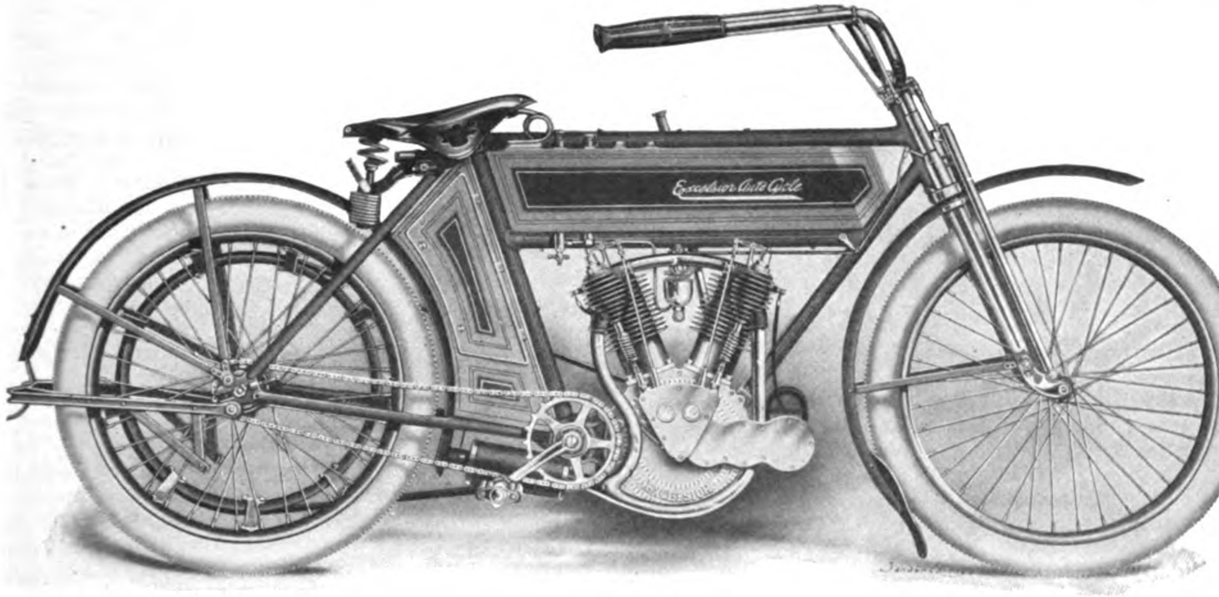
Charlotte, Mich.

* * *

WILLIS SETS A FINE EXAMPLE.

THIS photo shows Fred I. Willis, of Indianapolis, president of the F. A. M., ready for a trip on his Excelsior. Incidentally, the picture demonstrates that a motorcyclist can dress comfortably and in a practical manner and still present a neat and gentlemanly appearance when awheel. The Willis example in this respect is a good one to follow.

EXCELSIOR AUTO-CYCLE



MILES AHEAD OF THEM ALL

When the first Excelsior Auto-Cycle was placed on the market, it became immediately notable for the many valuable features found in no other motorcycle.

It has always retained its lead.

The 1910 Excelsior Auto-Cycle is the only motorcycle equipped with a positive lubricating system in the rear hub and brake mechanism.

It is the only motorcycle with mechanical force feed lubricating system with sight feed in plain view of the rider.

You do not worry as to whether your oiler is working.

You just look down and see it flow.

These are just two vital points in the matter of lubrication. Every other part is equally far ahead.

See the nearest dealer or write for catalog E10 which shows them all.

Call on us at Space 129-130-131, Chicago Show.

EXCELSIOR SUPPLY COMPANY

ESTABLISHED 1876.

233-237 RANDOLPH ST., CHICAGO, ILL.

MAKERS AND SELLERS

WIDMAYER, KELLOGG AND MAPP.

F. B. WIDMAYER COMPANY, 2312 Broadway, this city, has just closed for 1910 with the Hendee Manufacturing Company, and also with the Excelsior Supply Company, to handle in New York the Indian and Excelsior respectively. Mr. Widmayer and those associated with him believe that in this combination they have a fine and altogether promising proposition. They have 1910 models of both machines on exhibition in the show windows of the store, which has just been renovated. The associates of Mr. Widmayer are Stanley T. Kellogg, Harry Mapp and Mr. Bell, formerly of the Ovington Motor Company, who will attend to the repair work and who will make a specialty of overhauling machines of any make and getting them in good shape for the riding season.

The Widmayer Company carries a full line of Indian and Excelsior parts, together with scores of other accessories. The Widmayer 1910 catalogue, which will be ready for distribution about the middle of this month, is the most complete exclusive motorcycle supply list every issued. The Widmayer Company is finding the demand for its handle-bar magneto cut-out switches very great, especially among the owners of high powered twins. There is also quite a demand for second-hand machines, of which the Widmayer firm always has twenty or thirty on hand, including Indians, Excelsiors, Harley-Davidsons, Wagners, Royal Pioneers, N. S. U.'s, Thors, F. N.'s, Curtiss, etc. Finally, this concern has a complete line of Excelsior bicycles and a comprehensive supply of bicycle sundries.

BILLY WRAY TO SELL NEW ERAS.

BILLY WRAY, too well known in racing circles to require any introduction, has been engaged as manager of the motorcycle department of the Atlantic Motor Car Company, 225-227 West 57th street. This concern has just closed with the New Era Autocycle Company to handle its machine in Greater New York. Wray, a thorough hustler, and with many other qualifications which make him a first class salesman, is most enthusiastic over the prospects. It is his intention to push the sale of the New Era in this part of the country with all the energy and intelligence he can command. Incidentally, he will compete on the New Era machine in reliability runs, endurance contests and the like. Wray has a mount in which he has the utmost confidence. However, its many unique and comfort-giving features need no further elaboration here, the 1910 models having been fully described in our January 15 issue. Those who are interested in obtaining a reliable mount with two-speed gear, free engine, hand cranked motor and a number of other desirable features, can do no better than call on Billy Wray. Remember the address, 225-227 West 57th street, this city.

RISE OF THE MESINGERS.

THE men who study the equipment business closely must have noted the growth of the Mesingers, who manufacture a line of motorcycle saddles which includes the well-known Cavalry type. The Mesinger Bros. are quietists and very few people in the trade know to what big proportions their saddle business has grown. The Mesingers have been making saddles for over twenty years, in fact since the very dawn of bicycling. Once they came a fearful cropper. Their entire output was sold through a great New York house, one of fifty years' standing and of splendid reputation, but which suddenly reached the end of its rope. When this house went under, and it was a surprise to everyone in the sporting goods trade, the Mesinger Bros. were practically wiped out. In fact they practically had to start over again in life. As the submerged firm paid absolutely nothing to its creditors, the task of rehabilitation was all the more difficult.

However, with that thoroughness which is characteristic of the German, the two Mesinger brothers kept at it until today they have a big and fine saddle plant in New York City, with a business extending all over the United States in the cycling and the motorcycling field. Perhaps the table of motorcycles and their equipment, published in the January 1 issue, on page six, is the best index of what they have done. Of the sixty-one machines mentioned in that table fourteen are equipped with Mesinger saddles, while on thirty-three other machines the Mesinger saddle is optional. This is certainly a splendid record.

NEW COAST MOTOR MART.

LOS ANGELES has a new motor mart, at 10th and Oliver streets. This is a new departure for Los Angeles. As there is a tremendous field there for automobiles and motorcycles the new motor mart ought to be a paying enterprise. The motor mart idea is originally English and also French, as both Paris and London have a tremendous depot in which motorists may buy anything they may need. On this side Boston has already a very successful motor mart located in Park Square, which is in the heart of the automobile district. In the Boston motor mart, which is located in an absolutely fireproof building, there are housed fifty different automobile agencies, two automobile supply houses, several supply departments, a speedometer factory, an electrical charging station, tire agencies and, by the by, a restaurant, barber shop, clubroom, chauffeur's clubroom, waiting and retiring room and, in fact, all the facilities of a first class club. Motor marts are really the department store idea specialized and their number is likely to increase.

THE 1910 RED HEAD PLUG.

ELSEWHERE in these columns the birth of the Red Head Motorcycle Plug is announced by the Emil Grossman Company, New York, the manufacturers. The regular type of Red Head achieved such wonderful popularity that a great reception surely awaits the motorcycle plug. This type is not a cut-down automobile plug, but is especially designed by experts to meet the peculiar requirements of motorcycle ignition. It is simple in design, compact and highly efficient. The shell, being turned from brass, will not freeze to the motor. The firing points are thin platinum wire and give a spark that will ignite the mixture under *all* engine conditions. By unscrewing the bushing, the electrode may be taken out for cleaning when necessary, without removing the shell from the cylinder, with no loss of time.

EXCELSIOR AGENCY IN DAYTON.

THE Excelsior Autocycle Company has closed with Joseph A. McKinney, of Dayton, Ohio, to handle the Excelsior in that city. Mr. McKinney was connected with Niehaus & Dohse for eight years, and is particularly well qualified for the responsibilities he has just undertaken. His place of business is in the Binn Building, corner First and Main streets.

Everyone acquainted with the history of motorcycling in America, will tell you that

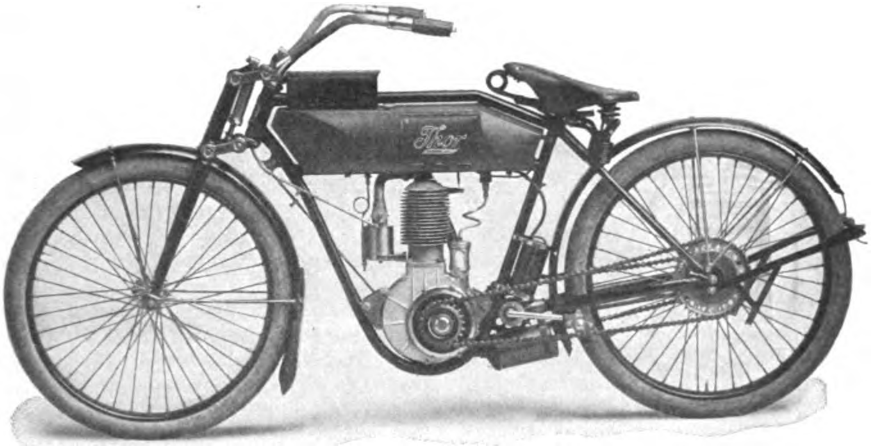
Thor

Skill
Workmanship
Facilities

constitute the real foundation on which rests the success and prosperity of the industry. It is those qualities heightened by increased experience that are responsible for the

Thor IV

TRADE MARK



and that truly make it

The Motorcycle Supreme

It is not possible to compress more real goodness and more real practicality into a machine of any sort. It is the motorcycle for the man who seeks lasting satisfaction and who desires to be proud of his mount. It is the motorcycle for the dealer who would hold or build a reputation for himself and who would avoid "come-backs."

IN WHAT CLASS DO YOU STAND?

AURORA AUTOMATIC MACHINERY CO. *Thor* BUILDING, CHICAGO, ILL.

DISTRIBUTORS:

A. FREED, San Francisco, Cal.
J. S. LENG & SONS CO., New York, N. Y.
GUS HABICH, Indianapolis, Ind.
FRED WILLIAMS, Denver, Col.
MOTORCYCLE SPECIALTY CO., Boston, Mass.

APEX FLAT AND "V" BELTS—HENDEE COMPANY BUILDING AERO-MOTORS.

REPORTS come from the Apex Belting Company, of Philadelphia, manufacturer of the "Shoemaker" "V" and flat motorcycle belts, of an unusually busy season. In spite of its being the dull time of year, belts are being shipped out as fast as they can be made. It has been necessary to increase the facilities for delivery in anticipation of the spring trade. Tests have been made of both the "V" and flat belts in city and country, all of which show that the Apex Belting Company has an unusually good proposition in motorcycle belting. Users report that the belts are free from slippage, are of great strength, and are not affected by climatic changes. Road trouble has been reduced to a minimum. All of which the manufacturers have steadily claimed.

The "Shoemaker" belts are made of mineral tanned leather—a secret process. This tannage, instead of separating and weakening the fiber of the hide, strengthens the fiber and leaves it intact. The mineral process leaves the leather very pliable, and develops a surface that clings closely to the pulley. No belt dressing is required, and the leather is not affected by water, oils, grease or dust, and has but little stretch.

The "V" belt is made of five plies of leather, all cemented together with waterproof cement. Then the plies are riveted, and a square-head washer on the top clinches the rivets; this gives a solidity to the belt and prevents the edges curling. Finally the two bottom plies are beveled or blocked, so that the belt may easily round the smaller pulley, but as the belt drives from the sides no power is lost.

The "Shoemaker" flat belt is also made from "Beaver" leather, and is two-ply. Between the plies a layer of non-stretchable razor-strop webbing is placed and firmly cemented to the two plies of leather. Then, for the purpose of getting solidity, three rows of waxed thread are stitched lengthwise through the belt. This construction allows a belt to be made endless at the factory, and as it will not stretch, it need never be touched after it is once placed on the machine.

TWO gasoline engines for use in flying machines are well under construction at the plant of the Hendee Manufacturing Company, in Springfield. The engines are of 25 and 50 horse power, "A. L. A. M." rating, and will weigh between 3 and 3½ pounds per horse power. These models are designed by James H. Jones, who has made an enviable reputation as the designer of the Knox automobile engine.

The 25-h. engine is a four-cylinder vertical motor. The 50-h. engine is an eight-cylinder V type engine. This model motor is composed of two rows of four cylinders each, the purpose being to obtain both lightness and efficiency. Those who have been fortunate enough to ride in the six-cylinder runabout equipped with the new engine which Mr. Jones worked out have some idea of the efficiency of the engines of Mr. Jones's designing. The Hendee factory is admirably fitted to do the delicately accurate work necessary to turn out a fine, small engine of high efficiency. Work has been going on the two models for three months past, and in about two months more it is expected that the models will be ready for demonstration. In the meantime, the company will establish a new department to be devoted entirely to the construction of aerial engines.

NOT THE SAME.

NOW and then we go from home to clip an interesting item. We learn from *Pacific Motoring* that The Harley-Davidson Motor Company is *not* called after the Canadian crack skater of that name. The firm is composed of a Mr. Harley and two Mr. Davidsons, hence the combination of Harley-hyphen-Davidson, which is exactly the name of the Canadian skater artist, excepting that he does not sport a hyphen. Mr. Harley is the master mechanic, Arthur Davidson the sales manager, while Walter Davidson handles the business generally and is also known as a great endurance rider. In other words, Mr. Harley is the mechanical sharp, Arthur Davidson the traveler, talker, smiler and seller, while Walter Davidson holds down the inside business, etc., though of late we have noticed not a few letters from this house signed by G. Lacy Crolius, who has long been a prominent motorcyclist of Milwaukee.

* *

A SPRING TANDEM ATTACHMENT.

MANY riders have had occasion to wonder why some one did not invent an easy-riding tandem attachment for motorcycle use, so as to increase the popularity of riding "double." A great many motorcyclists do not know that patents for a tandem attachment were issued to A. W. Duck in June last. They cover a spring tandem which has proved ideal for double riding. This tanden attachment is now being manufactured and sold by A. W. Duck, of 427 15th street, Oakland, Cal. He has received strong testimonials from those who have used it. Any one interested in tandem riding should write him for full particulars.

* *

N. Y. HARLEY-DAVIDSON AGENCY.

THE Harley-Davidson Motor Company is now represented in Gotham, its Greater New York agent being the Weaver-Ebling Automobile Company, 2230 Broadway, near 79th street. The transaction establishing the Weaver-Ebling folks as New York sellers and distributors of the Harley-Davidson machines was closed by Arthur Davidson just before he left for the West after the Garden Show.

WAGNER AGENCIES IN THE MIDDLE WEST.

THE Geo. C. Detch Wheel Company, 229 Massachusetts avenue, Indianapolis, has taken on the exclusive agency for the Wagner line in that city and will act as distributors in the territory of which Indianapolis is the center. The Wagner representative for Northern Indiana during 1910 will be the Arnold Motor Company, of Logansport, Ind. The Racine Boat Company, 1610 Michigan avenue, is the Wagner agent in Chicago. The Racine Boat & Auto Company, of 253-255 Jefferson avenue, will take care of the Wagner interests in Detroit.

* *

NEW M. M. AGENCY IN CLEVELAND.

M. M. motorcycles will be sold in Cleveland during 1910 by the V. R. Hall Auto Company, which has a fine store and salesroom at 1693 Euclid avenue, right in the center of Automobile Row. The headquarters of this concern are situated within five minutes' walk of the Public Square. The Hall folks are hustlers and it is generally conceded that the American Motor Company has obtained a valuable acquisition to its rapidly expanding selling force.

* *

A TWO-CYCLE SHAFT-DRIVEN TWIN.

ACCORDING to rumors emanating from Hartford, Conn., a twin cylinder shaft-driven machine with a two-cycle engine is soon to be manufactured by the Marathon Motorcycle Company, in which L. E. Rhodes and others are interested. The new concern is in process of incorporation and will therefore not be ready to market its product until the spring. None of the details of the machine's specifications have as yet been announced.

* *

EDDIE LINGENFELDER, the well-known racing man, has jumped into the field as a motorcycle salesman and is now making a tour of the United States in the interest of the N. S. U. Company. Mr. Lingenfelder is suave and ought to make a very good salesman. His trip will bring him from San Francisco to New York and then back again.

A Tip for M.M. Riders and Agents

We've decided on an important change. Hereafter we shall market the 3½ hp. M. M. Battery Special, *including* free engine pulley and clutch, for $200. This machine has always sold for $200 with the ordinary pulley. We first marketed it in 1908, and for two years it has been the only first-class motorcycle on the market at that figure. It has made good—we'll leave that to any man who has ever owned one.

We have brought it up to date—built in the 1910 improvements, such as automatic stand, new spring fork clips, lower handle-bars, drop forged bell cranks on the control system, etc. In fact, we've built a $200 motorcycle that leads every other machine at that price and which equals many sold at a much higher figure.

The M. M. clutch comes as an extra ($15) on our other models, and we had intended it should be an extra on the 3½ hp. Special. But the point is just this—the prices of the M. M. 3½ and 4 hp. models are so close together that every rider wants the "4" in preference to the smaller one. When we designed the "4" we determined it was to be the finest and most complete motorcycle ever marketed, at any price. Then we figured costs to the closest margin, and fixed the price at $225. This machine is a wonder, and we won't blame the riders for wanting it—but we can't make them fast enough. Our capacity is limited.

On the Battery Special the factory capacity is limited, too—we'll make one thousand only of this model. But we've had a head start on them, and half the total are already assembled. We've got 'em here, ready to deliver right now, fitted with either the new clutch or the M. M. variable speed pulley.

Where can you equal it? Just consider: 3½ hp. battery ignition, option of flat or V-belt drive, original M. M. flat-leaf spring front fork, seamless brass nickeled tank, 53-inch wheelbase, 2¼-inch tires, etc., etc., *including* the new free engine clutch or the variable speed pulley, for $200. If you want one of the first 500 for immediate delivery say so, *right now*. For detail specifications ask us for the Battery Special circular.

AMERICAN MOTOR CO., 716 Centre St., Brockton, Mass.

Member Motorcycle Manufacturers' Association

Distributors: Boston, 173 Huntington Ave.; New York, 10 W. 60th St.; Buffalo, 895 Main St.; Chicago, 2127 Michigan Ave.; Dallas, Tex., M. M. Building, So. Ervay St.; Los Angeles, 1034 So. Main St.

THOSE WHO SELL IN CHICAGO.

THE Hendee Manufacturing Company have enlarged their branch at 1251 Michigan avenue, Chicago, so that at the present time they occupy the entire building, a two-story structure, for the sale of Indian motorcycles and supplies for Chicago and the surrounding territory. The main salesroom, garage and small parts stockroom are located on the first floor, which has been very much improved in appearance by almost an entirely new equipment, making it one of the finest salesrooms devoted exclusively to motorcycles in the Middle West. The second floor is fitted up as a reception and smoking room in the front, and the entire rear is partitioned off as a stockroom with a capacity for 100 to 150 Indians ready for shipment. All motorcycle enthusiasts are most cordially invited to make themselves at home in the new reception room, where they will find everything for their convenience, as well as a sample line of 1910 Indian motorcycles. The manager, P. B. Whitney, states that business is coming in with a rush.

* *

IT will prove interesting to many people in various parts of the country, especially in the Middle West, where "Whipple, the Motorcycle Man" is best known, to learn that Whipple has just closed a deal whereby he will have the exclusive distribution of Greyhound motorcycles in the States of Illinois, Wisconsin and Indiana. Of course the new arrangement involves the placing of a liberal stock order, and both Whipple and the Greyhound Motor Works consider that they are to be congratulated on the deal. The Chicago Show will afford a chance for a lot of good Greyhound work on Whipple's part and he will be strongly in evidence at the company's exhibit there.

* *

IN the Thor Building Manager George W. Sherman invariably wears a smile indicative of excellent business and of wonderful prospects. As a matter of fact, the Thor folks are not very much interested in the future just now, as they have all they can do to supply the immediate demand. The Thor Building is a new and handsome structure, fitted out just as the sales headquarters of such an important firm should be. The interior always presents a busy scene, the Thor IV being especially subject to almost constant attention by prospective buyers.

* *

SALES agent S. B. Hart and Manager Woodward are the Excelsior Supply Company's representatives who most carefully study conditions in Chicago and elsewhere. These two men, backed up by a machine which of itself is a great selling force, look forward to a largely increased Excelsior business during 1910. The retail sales department of the Excelsior Autocycle Company is being remodeled throughout When the improvements are completed the store will be one of the finest of its kind in the entire West. Ten or twelve salesmen will be employed to do full justice to the local sales situation.

* *

MANAGER MATTOON, of the Chicago branch of the Consolidated Manufacturing Company, is expecting an increased volume of business, largely because of the addition of a twin to the Toledo product. However, the Yale has always been very popular in the West, as it is, for that matter, elsewhere in the country. But its record in the Chicago Reliability Run last year has proved especially valuable in advertising in the Middle West the sturdy machine for which Mr. Mattoon is fortunate enough to have the Chicago agency.

* *

READING STANDARD machines are sold in Chicago by Hess & Musselman, who feel that 1910 is a year of great promise for the Pennsylvania-made two-wheeler. The new Reading Standard features are attracting considerable attention and the sales to date exceed those contracted for during the entire winter of last year.

SIXTY-EIGHT AND STILL A RIDER.

ONE of the oldest riders in the country is Captain F. E. Yates, of 429 East 41st street, Chicago. The Captain is 68 years old, one of the charter members of the Chicago Club, and also a holder of an F. A. M. membership card. Captain Yates, formerly instructor at the Cavalry Camp of Instruction, Washington, D. C., and for many years teacher of foil and sword practice, is now giving lessons to private pupils in that city. He finds fencing and motorcycling a great combination, productive of good health and the disposition to truly enjoy life.

THE Harley-Davidson branch is in charge of Mr. C. H. Lang, who is too well known for his road and track work to require any introduction to the readers of this paper. Chicago is one of the best selling points for Harley-Davidsons and Mr. Lang is of the opinion that although he has done wonderful well with this reliable machine in the past, every Harley-Davidson sales record will be smashed as the result of that company's 1910 campaign.

* *

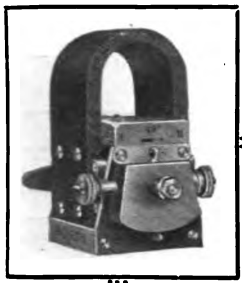
AT the M. M. Branch Mr. Guy M. Greene, jubilant over his recent reinstatement by the F. A. M. Competition Committee, expressed his determination to give to the product of the American Motor Company even greater publicity than heretofore on Western roads and tracks.

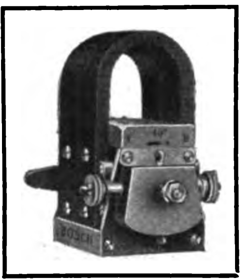
* *

CHICAGO SHOW DECORATIONS.

SO much attention is to be given to the decorations of the Chicago Show, which opens in the Coliseum and First Regiment Armory Feb. 5, that even the atmosphere is to receive consideration. Following out this idea, arrangements have been made to give a timberland odor to the structure, which is to have a forest setting. Incense such as was used in a Hudson Bay production by Robert Edson a few years ago will give the audience a breath of the pine country. The Coliseum Annex, which is to be fitted out as a rose garden from basement to second floor, is to be scented with rose water, while a rustic atmosphere will be provided for the First Regiment Armory, where the decorations are to be different from those in either the Coliseum or Annex.

"This will all cost money, and will involve a larger expenditure than ever before for decorations and atmosphere," said Manager Miles. "However, it is my ambition to give Chicago an exhibition and a setting that will outrival anything ever before offered in this country or abroad. My estimates call for an outlay of over $75,000 in decorations alone."





Bosch Equipped Motorcycles

Supreme at National Madison Square Show

Of 52 motorcycles equipped with magnetos which were exhibited at the National Show, Madison Square Garden, *41 were equipped with Bosch Magnetos.*

Among the motorcycles exhibited with Bosch Magnetos as part of their 1910 equipment were the following:

Excelsior
Harley-Davidson
Herring-Curtiss
Indian
Marvel
Merkel
N. S. U.
M. M.
Reading-Standard
Royal Pioneer
Thor
Yale

As indicated by this typical motorcycle exhibit the proportion of magneto equipped motorcycles has increased about 30 per cent. in one year—and *practically the entire gain in magneto equipment has been in Bosch Magnetos.*

This result has been brought about by the efficiency, reliability and power demonstrated by *Bosch Equipped Motorcycles* in general use and in contests during 1909.

The vast majority of motorcycle contests of the world have been won by Bosch Equipped Motorcycles—and the great records for distance, endurance, speed and reliability *have been established by Bosch Equipped wheels.*

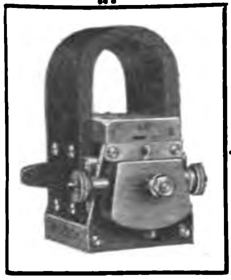
Consult the above list when purchasing a 1910 motorcycle, and remember that a Bosch equipped motorcycle spells ignition efficiency and will give you *continuous satisfaction.*

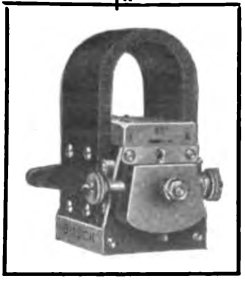
See Our Exhibit at the Chicago Show

BOSCH MAGNETO COMPANY

223-225 West 46th Street, New York

Chicago Branch: 1253 Michigan Avenue
San Francisco Branch: 357 Van Ness Avenue
Detroit Branch Opens in February





MOTORCYCLE MART: IT SELLS THE STUFF.

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word. No advertisement for less than fifty cents. Cash with order, always.

FOR SALE OR EXCHANGE

FOR SALE.—1909 M. M. Magneto 3½ h. p. single, in good running condition; will sell cheap. W. D. Conner, Timmonsville, S. C.

FOR SALE—Merkel single, Bosch magneto, standard speedometer, cavalry saddle; used little; looks new, in excellent condition. Will make 58 miles per hour. The gold medal endurance run machine, $160. P. Stranahan, 36 Whither street, Boston, Mass.

FOR SALE—1908 Indian 3½ h. p., new rear tire, never used. Engine just from factory, overhauled, with 1910 valve gear, never run; bargain at $125. First class condition. R. E. Wilder, 527 Thomas avenue, Johnstown, Pa.

FOR SALE—Indian 1908 twin, torpedo tank, long handle bars, seat over rear wheel, factory overhauled this winter. Price, $150. E. L. Day, Y. M. C. A., Syracuse, N. Y.

FOR SALE—4 h. p. 1909 Harley-Davidson model 5 B; new in November; ridden 169 miles; well equipped with accessories and in perfect condition. First check for $140 takes it. Address, C. F. Williams, Mansfield, Ohio.

FOR SALE—1909 3 h. p. R.-S., battery, belt; just overhauled. A1 condition. Leon E. Mansur, Westminster, Mass.

1909 WORLD'S RECORD IMPROVED Curtiss Single. Engine overhauled, runs like new. New Bailey tires, spring fork, tool bag with tools, extra nuts, valves, springs, spark plugs, etc., luggage carrier. First check for $127 takes it. Ralph Mount, Marion, Ohio.

FOR SALE—One twin 1909 5 h. p. Indian; loop frame; a bargain at $150. Chas. Grow, Oregon, Ill.

FOR SALE—Merkel Single 3 h. p.; bought September last, ridden 92 miles; same as new. $160. James A. Peirce, Middletown, O.

HELP and SITUATIONS WANTED

WANTED—A general motorcycle and bicycle repairman; permanent position. Address, stating salary expected and references. Edward Rich, 32 Dwight street, Springfield, Mass.

AGENTS CARDS, ETC.

WANTED—Second-hand motorcycles, in good condition. Also motors, frames, lamps, speedometers, etc. Johnson & Van Keuren, Danbury, Conn.

BUILD YOUR OWN MOTORCYCLE. Instructions, 25 cents. Address, The Motor, Box 416 Bradley Beach, N. J.

WANTED—Motorcyclists to know that we carry a full line of spare parts for "CURTISS," "ROYAL PIONEER," "R.-S.," and "INDIAN" Motorcycles; as well as the best variety of highest accessories manufactured. Reliable repairing done on the premises. Tiger Cycle Works Co., 782 Eighth Avenue, New York. 'Phone, 1268 Bryant.

CAMPBELL'S VALVE GRINDER, the best yet; try it, 35 cents per box. C-H Manufacturing Co., 3815 John avenue, N. W., Cleveland, O.

MOTORCYCLES thoroughly overhauled and repaired; agents for Thor and Excelsior motorcycles; supplies and sundries. Brazenor & Ruderman, 1041 Bedford avenue, Brooklyn, N. Y.

M-M and R-S MOTORCYCLES—East End Cycle Co., Highland & Beitler, near Centre avenue, Pittsburg, Pa.

SECOND-HAND M. M. BARGAINS—Exhaust Whistles, Hand Idlers. M. M. Branch, 895 Main street, Buffalo, N. Y.

FOR SALE.—Slightly used Bosch Magneto for Twin engine; Mabon clutch; Brown & Barlow, Amac and Longuemere carbureters; 1910 model motor frames and fittings; used side cars; 6 and 4 h. p. singles, good order; 4-speed pulley and free engine. Illinois Motorcycle & Accessories House, 1842 So. Kedzie avenue, Chicago, Ill.

FOR SALE—New 5 h. p. twin Indian, $200; second-hand 5 h. p. twins, $125 up; singles, $75 up. F. B. Widmayer Company, 2312 Broadway, New York City.

IF IT IS a second-hand machine you want, write to A. D. Cook, 111 Monroe avenue, Rochester, N. Y.; Curtiss Agency.

BARGAINS in accessories. Always on top. We have the largest stock and lowest prices in America. Write today for catalogue. Motorcycle Equipment Co., Hammondsport, N. Y.

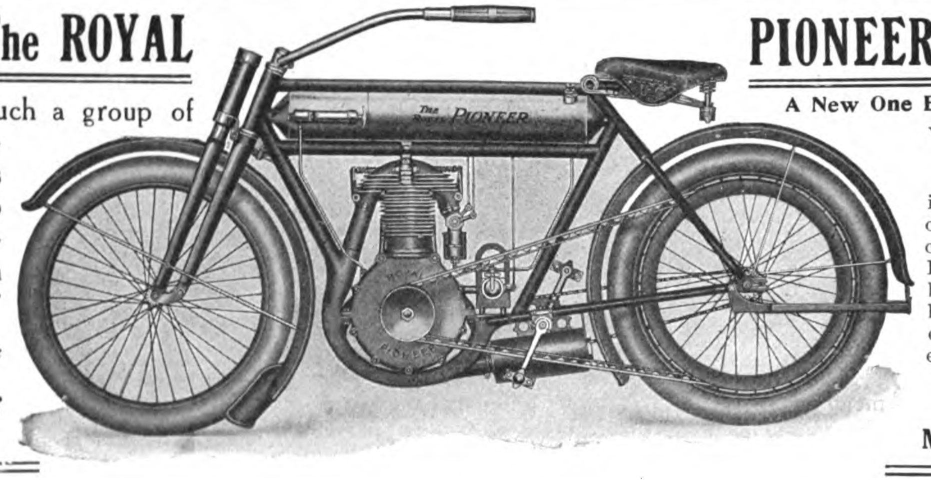
1910—The ROYAL PIONEER—1910

constitutes such a group of valuable features as is found in no other machine on earth

The "Show Me" Motorcycle

Write for more Information

Royal Motor Works, Inc.



A New One Each Time

Washington,
D. C.

The Pioneer is the best hill climbing machine on wheels. Everyone is booming it here; it is so quiet and powerful.

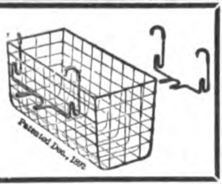
G. W. W.

Worcester Massachusetts

Dowe's Bicycle Luggage Carriers

Best Thing for the purpose ever put on the market. In use all over the United States. ¶ Can put on or detach instantly with adjustable hook. ¶ Good sellers because the riders all want them and the price is popular. Write for Prices.

DOWE WIRE & IRON WORKS
Louisville, - - Kentucky



ADVERTISE IN THE MART

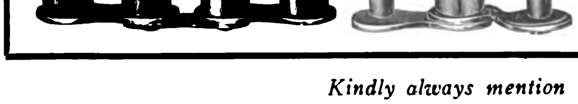
3 CENTS A WORD

ROYAL PIONEER MOTORCYCLES

1910 models now ready for delivery. Finest stock of parts for all makes of machines and all kinds of sundries in Greater New York. Give us a trial and be satisfied.

TIGER CYCLE WORKS CO.
782 8th Avenue New York City
F. A. M. OFFICIAL REPAIR SHOP.

Duckworth Chains and Duckworth Connecting Links



Make a Strong Combination

Be Sure to Specify Duckworth.

Duckworth Chain & Mfg. Co., 40 Mill Street, Springfield, Mass.

The TRIUMPHANT

Motorcycles

R-S

WILL BE EXHIBITED AT

CHICAGO AND BOSTON SHOWS

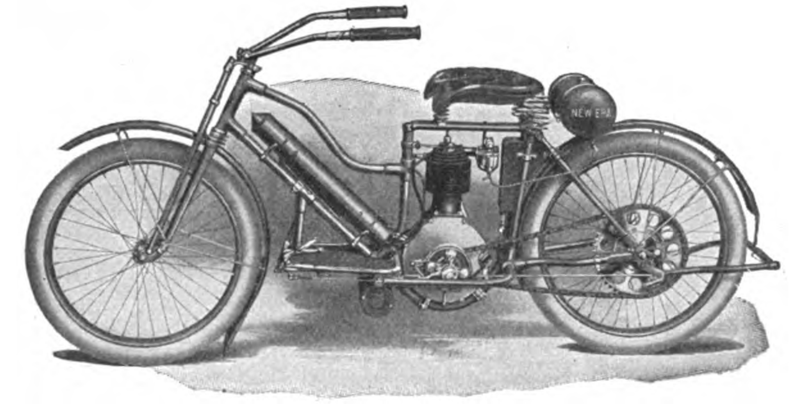
"They Will Talk for Themselves"

READING STANDARD CO., Reading, Pa.

HAVE YOU NOTICED

How the Manufacturers of Motorcycles are tumbling over one another in their efforts to obtain Two Speed Gears and Free Motor devices? And do you know that it requires several years of experience to produce a practical and efficient two speed and free engine? If you don't you can easily make sure by buying a machine fitted with an untried two speed. But why pay so expensively for this knowledge when you can buy, as part of your

1910 New Era Auto-Cycle

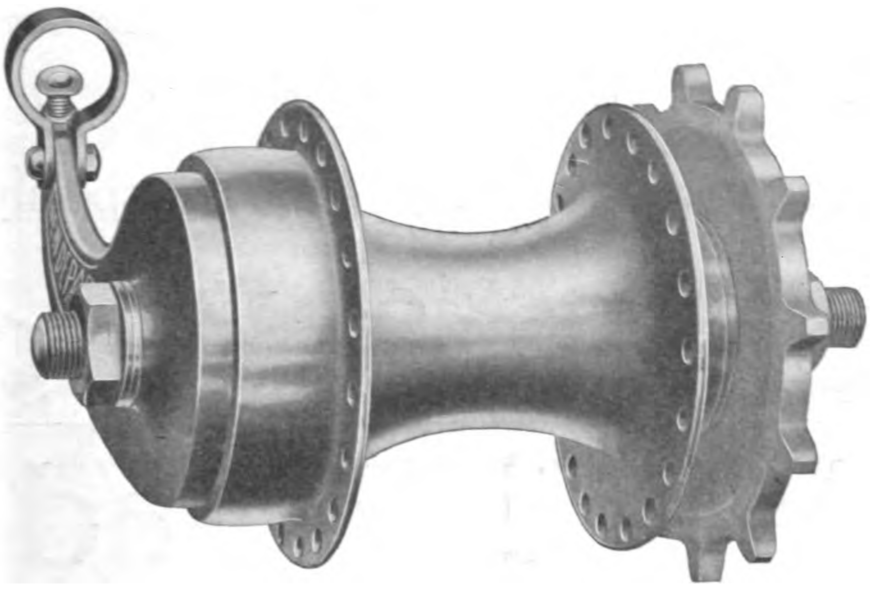


Patent Pending

Two Speed Transmission and Free Motor, motor started by means of a crank, no pedals, comfortable, upholstered Form seat and foot board, excellence of design, beauty of workmanship, power and endurance. The machine for both country roads and crowded city streets.

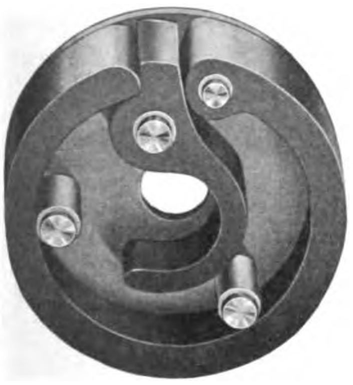
LIVE AGENTS, HANDLE AN UP-TO-DATE AUTO-CYCLE. The Two Speed isn't Simply Coming—it's already here, and right Here, in the New Era Auto-Cycle. Others will follow in our footsteps, but, Mr. Dealer, Isn't it Better to Lead? If you think so, and if you are wise, that Is Your Opinion. You will write for an Advance Circular and our Agency Proposition. We shall Exhibit at the Chicago Show, Space No. 98.

The New Era Auto-Cycle Co., 22 Dale Avenue
Dayton, Ohio



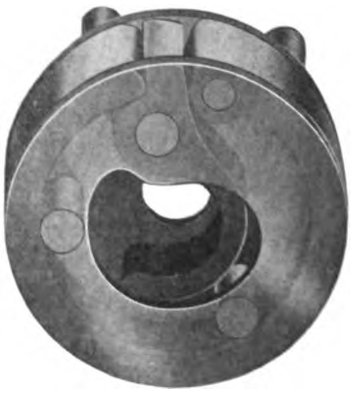
NEW NEW DEPARTURE

Internal Expanding Band Coaster Brake for Motorcycles is



Band Brake and Lever

POWERFUL
PRACTICAL
POSITIVE



Band Brake showing top plates holding parts in position—transparent view

The New Departure is the last word is coaster brakes for 1910 motorcycles. Radical improvements have been made, bringing it abreast of motorcycle advancement. It is dependable under all circumstances, strong enough to stall the highest powered motors; cannot bind, lock, "feed up" the pedals or cut into the hub. Every test proves claims made for it and every user declares its unfailing efficiency.

When asking your dealer about the "NEW" New Departure, do not fail to tell him you want to see the internal expanding band coaster brake.

Write for Folder

THE NEW DEPARTURE MFG. CO.

Coast Brake Licensors

BRISTOL, CONN.

In the interest of
economical up-keep expense specify

Morgan & Wright

White Tread

Motorcycle Tires

on your machine for the coming year.

Much more tread stock than you have been used to having on your tires—hence much more service.

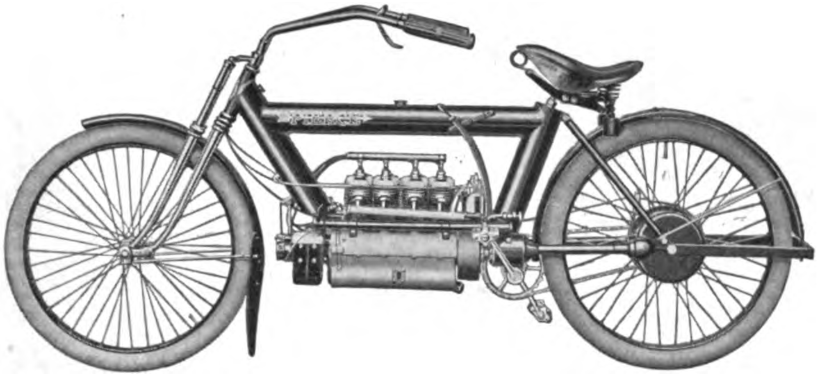
Any manufacturer will be glad to equip them.

MORGAN & WRIGHT
DETROIT

Branches, Agencies or Dealers Everywhere

PIERCE
Vibrationless
Motorcycle

VIBRATION-LESS



VIBRATION-LESS

COMFORT and POWER

These are the elements which give any motorcycle rider the greatest satisfaction. A man can ride a machine which vibrates, quivers and perhaps balks—but why should he when a PIERCE VIBRATIONLESS has none of these discomforting qualities. Also, it is possible to get along without a reserve power, but why should a rider use muscle-power when an amply horse-powered Pierce will carry him up the steepest mountain road?

TWO MODELS

We offer two models satisfying all classes and conditions of trade.

The Four Cylinder

is 7 H. P. with two speed and free engine, shaft drive, magneto ignition, mechanical valves, automatic oiling system and no tanks.

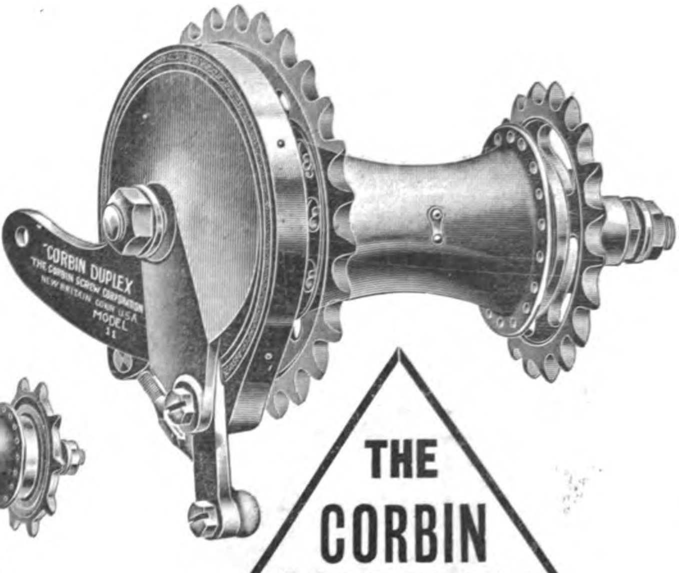
The Single Cylinder

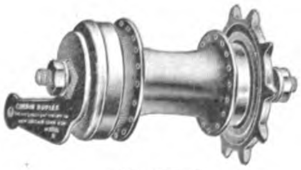
is 5 H. P. with free engine, magneto ignition ball bearing motor, mechanical valves and no tanks.

ASK FOR CATALOGUE "G"

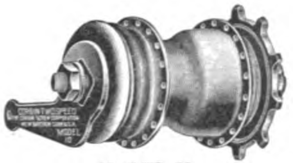
WE SHALL EXHIBIT AT CHICAGO

THE PIERCE CYCLE CO., Buffalo, N. Y. BRANCH AT OAKLAND, CAL.




MODEL 8.

**THE
CORBIN
BAND BRAKE**


MODEL 10.

NOT AN EXPERIMENT BUT A PROVEN SUCCESS, THE

CORBIN

BAND BRAKE

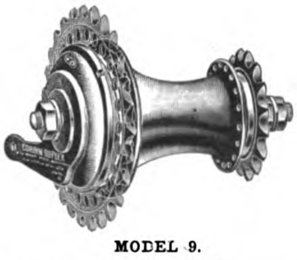
For Belt or Chain Drive Motorcycles is Superior to All Others in

Principle, Strength and Reliability

C-O-R-B-I-N Spells Both Quality and Workmanship

WAREHOUSES.

106, 108, 110 Lafayette Street, New York; Northwest Corner Eighth and Arch Streets, Philadelphia, Pa.


MODEL 9.

AGENTS AND RIDERS

Handle and Use a Brake Whose Success Has Been Demonstrated by Thousands. Quotations on Request.

THE CORBIN SCREW CORPORATION

LICENSED COASTER BRAKE MANUFACTURERS

THE CORBIN SCREW CORPORATION OF CHICAGO, 107-109 Lake Street, Chicago, Ill. **NEW BRITAIN, CONN., U. S. A.**

Also Users Know

Diamond

Motorcycle Tires

Los Angeles, Cal., Dec. 10, 1909.

Diamond Rubber Co., Los Angeles, Cal.

Gentlemen:—I take pleasure in voluntarily telling you of the satisfaction I am having with the use of your new motorcycle tire. For some five months past I have used a "**Diamond**" tire on the rear wheel of my six horse power N. S. U. motorcycle, which, by the way, is one of the very heaviest and fastest touring machines made. During most of the entire time I have carried an extra person on tandem attachment over this tire. The distance so far is over 2,500 miles. The raised tread shows little wear, and it seems as though it might take double this mileage to even wear the tread smooth. It matters not how hard the tire is blown up; it has great resiliency and rides very easy. I have never had it lose traction or skid at any time. There have been no punctures, it being tough enough to apparently resist being punctured.

Comparing all my past experience of five years riding different makes of tires, I certainly can say that the new "**Diamond**" motorcycle tire is certainly a wonderful production, and greatly improves the pleasure of motorcycling.

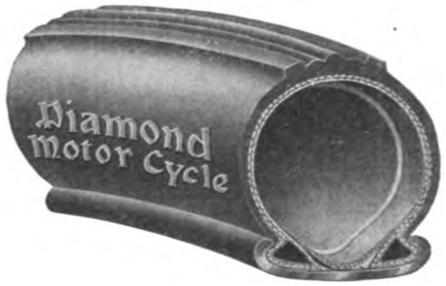
Yours very truly,

S. L. LYON.

The

Diamond Rubber Co.

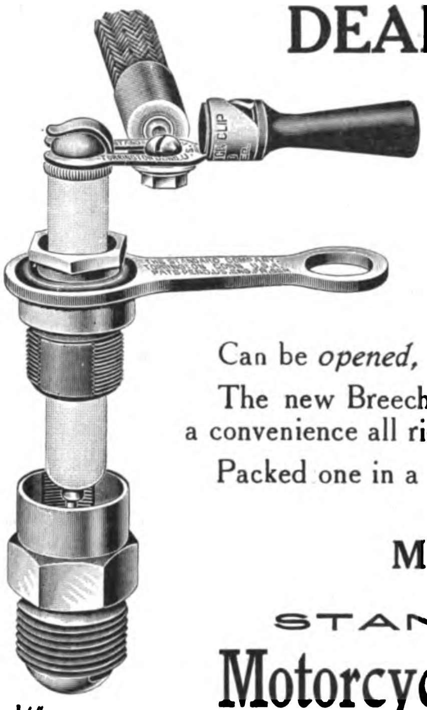
AKRON, OHIO



STANDARD-EQUIPMENT

FOR THE

MOTORCYCLE MANUFACTURER, DEALER AND RIDER



The Breech Block Plug

A COMBINATION

SPARKER PRIMER COMPRESSION RELIEF

One sixth turn *opens* or *closes.* The push of a *finger* locks tight to 2,000 pounds.

Can be *opened, cleaned* and *closed* in *four seconds.*

The new Breech Block Clip with Insulated Handle prevents shocks and is a convenience all riders will appreciate.

Packed one in a box with new clip-screw-nut and directions.

PRICE

Mica, $1.25 Porcelain, $1.00

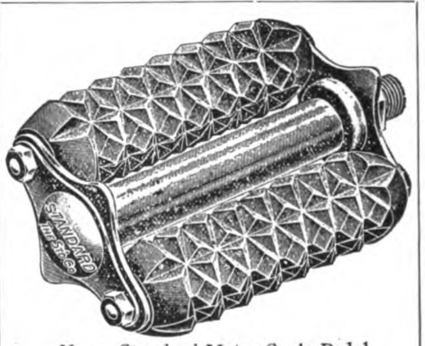
We recommend mica plug for motorcycle use

STANDARD

Motorcycle Pedals

Wide Tread Pedals combining *Comfort, Utility* and *Reliability.* Constructed of the *Best* materials by *Skilled Mechanics.*

PRICE, $3.00 PAIR



No. 3, Standard Motor Cycle Pedal

Emergency Axles, Sager Motorcycle Toe Clip, Diamond E <E> Spokes. Bridgeport, and Standard Pedals. Sager and Standard Toe Clips.

Send for our Descriptive Circulars

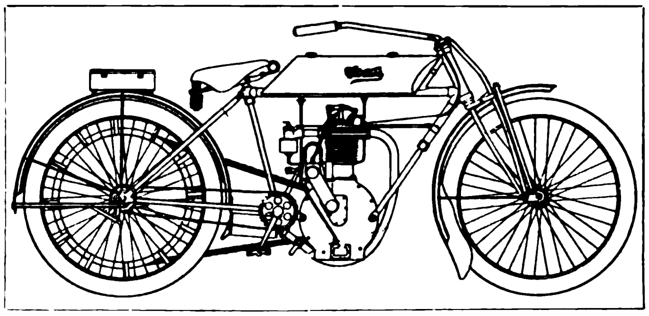
THE STANDARD COMPANY

Torrington, Conn., U. S. A.

The 1910 Curtiss

WITH OFF-SET CYLINDERS

Made a Big Impression at the New York Show



Offsetting, while it increases power, reduces the pressure by fully twenty per cent. Both valves are placed in the head of the one-piece cylinder, their stems inclined at an angle of about 45 degrees, and they open directly into the cylinder. By this means the cylinder interior is left perfectly plain, the head being slightly dome shaped. A rocker arm, mounted centrally over the cylinder head and actuated by a single vertical rod from the cam shaft, operates them both.

The Greatest Roadsters on Earth

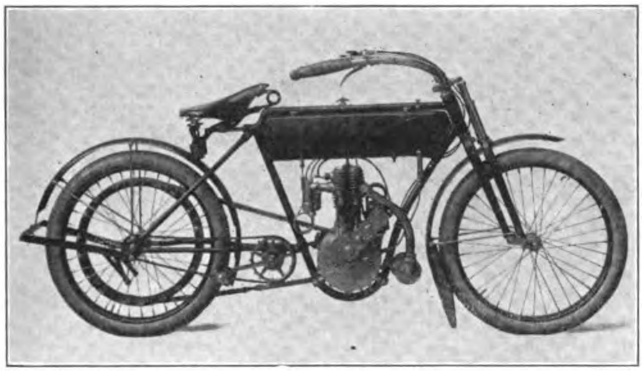
1910 CURTISS—4 H. SINGLE, 8 to 9 H. TWIN

The Reasons Why: Big, powerful, smooth running engines that never falter. A frame and equipment that is unsurpassed for neatness and strength. Mechanically operated valve in-the-head motors. Large diameter fly-wheels. Off-set cylinder. New "constant level" oiling system. $1\frac{1}{8}$ inch belt. Persons Tool Bag.

THE HERRING-CURTISS CO., Hammondsport, N. Y.
Member M. M. A.

The THIEM 1910 MODEL "E"

4 H.P. $3\frac{1}{4}$ x $3\frac{1}{2}$ Ball Bearing Motor



Many new and unique improvements. Model "E" represents a substantial advance in the Motorcycle Art. The evolution through which we have passed has emphasized features and improvements that are now embodied in our Model "E" that easily makes it the most improved Motorcycle made anywhere.

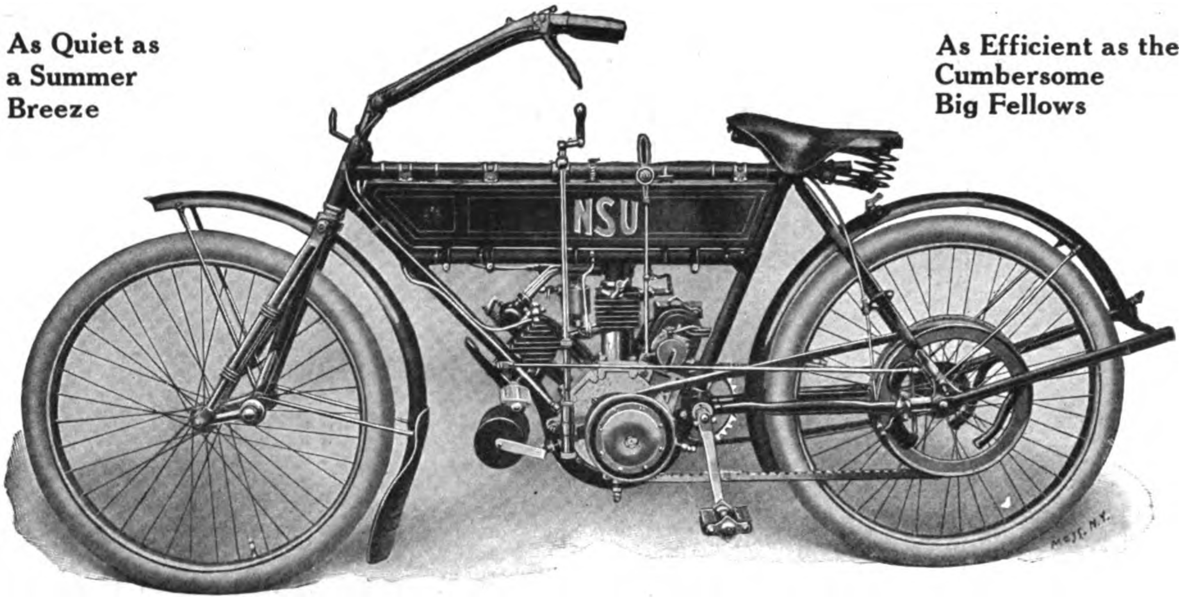
The Improvements are: Full Ball Bearing, Mechanically Operated Valves, Precision Oiler in addition to Pump in Tank, Magneto gear driven, special Spring Fork, Low saddle position, means for adjusting the Belt, and many minor improvements.

AGENTS WANTED EVERYWHERE.

THIEM MANF'G CO., Box 498, Minneapolis, Minn.

As Quiet as a Summer Breeze

As Efficient as the Cumbersome Big Fellows



The N. S. U. 3 H. P. Twin Roadster

YOU have never known what motorcycling was and you never will until you try the 3 H. P. Roadster. Its smooth, silent running, its great speed range and completeness as to every detail makes it a motorcycle to be tried by everyone; then we say

One Try, One Test, Good-bye to All the Rest

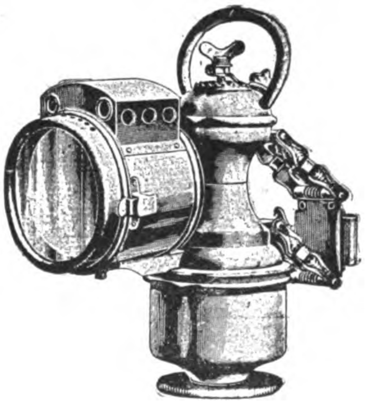
We want an Agent in every county. **Get Catalog "M" and know why.**

N. S. U. Motor Co., Members M. M. A. **206 West 76th Street, New York City**

Mr. Dealer! Our Goods Will Help To Increase Your Business

They will make friends for you. Motorcyclists who know that you handle our line will frequent your place to see the new goods. Weare the largest importers of motorcycle accessories in this country and the first to import new novelties. You have no idea how much difference our goods will make on your trade. Suppose you write for our trade discounts.

COMBINED LAMP AND GENERATOR

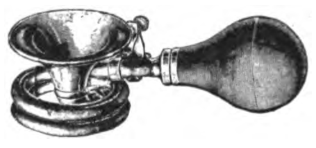


Handsome flared front lamp, very light and compact. Finished in nickel and with nickel fittings. Interior of lamp highly polished, projecting a brilliant light. Generators are very simple in operation.

Set 55A and 55B Lamp 5 ins. diameter, 4½ ins. depth, and generator height 5½ ins., diameter 2½ ins.

Price, Complete, - - - $6.50

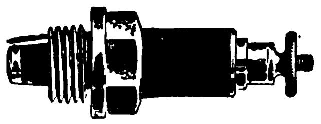
TRIPLE TWIST FROG HORN



Used mostly on motorcycles, runabouts, and on rear of tonneaus. Triple-twist construction produces a deep penetrating tone. Supplied in nickel or brass.

No. 10, Bell 3¼ Ins., Price, - $2.25
No. 11, Bell 4 Ins., Pric·, - 3.00

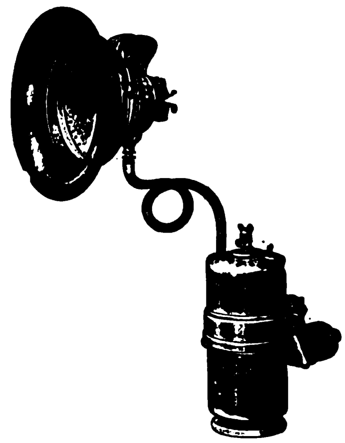
MICA MOTORCYCLE PLUG



Constructed from amber mica, with composition platinum points, ensuring positive spark.

No. 160, ⅛ inch and Metric, Price, 75c.

MOTORCYCLE LAMP SETS



A combination of lamp and generator that is better than any ever devised for motorcycles. Lamp has a mangin mirror lens that projects a powerful light. Generator is very simple in operation. Complete outfit weighs only 23 ounces. Bracket on any motorcycle will fit it. Supplied in nickel only.

No. 88, Price, - - - - $5.00

SEND FOR OUR NEW CATALOG AND TRADE LIST

THE MOTOR CAR EQUIPMENT CO., 55 Warren St., New York, N. Y. Wholesalers, Importers and Manufacturers

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They all go wild over the new

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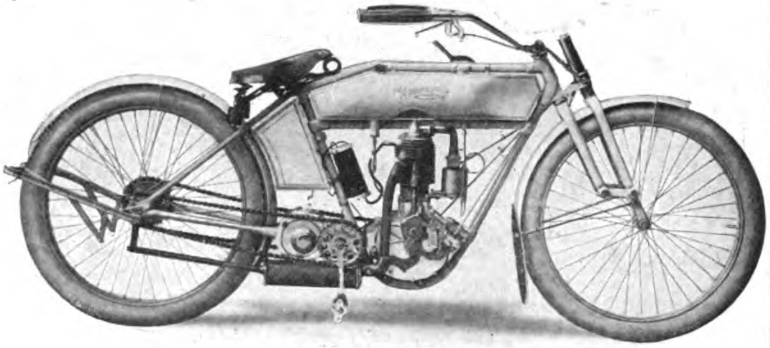
That new independent clutch
on the motor has made
a double hit.



Model K. Big 4. *Thor Motor.*

Attention Dealers. We have the two machines that the public wants: Our models "K" and "L". Write at once for agency proposition.

Minneapolis Motorcycle Co., 517 South 7th Street
Minneapolis, Minn., U.S.A.

The "STANDARD"
MOTORCYCLE SPEEDOMETER
IS THE LEADER FOR 1910

20 25
TRIP
MILES PER HOUR
10 20 30 40 50 60
TOTAL
1 3 5 7 4
TENTHS
STANDARD
SPEEDOMETER
PARKER MFG. BOSTON, U.S.A.
PAT. APPLD. FOR

Has stood the test of two years' use.

The Police of several cities have replaced other speedometers with **"Standards,"** because **"Standards"** remain accurate.

Special Fittings for every Spring Fork Machine and patents are pending on our new Swivel nut fittings.

We stand alone when it comes to the right kind of attachments.

This is of vital importance.

Our New Models have Trip as well as Season Odometer without extra charge, and you have a choice of either 60 or 80 mile dials at the same price.

Do not experiment but get what is acknowledged to be the best Motorcycle Speedometer, and be satisfied. **The "Standard" is the Leader.**

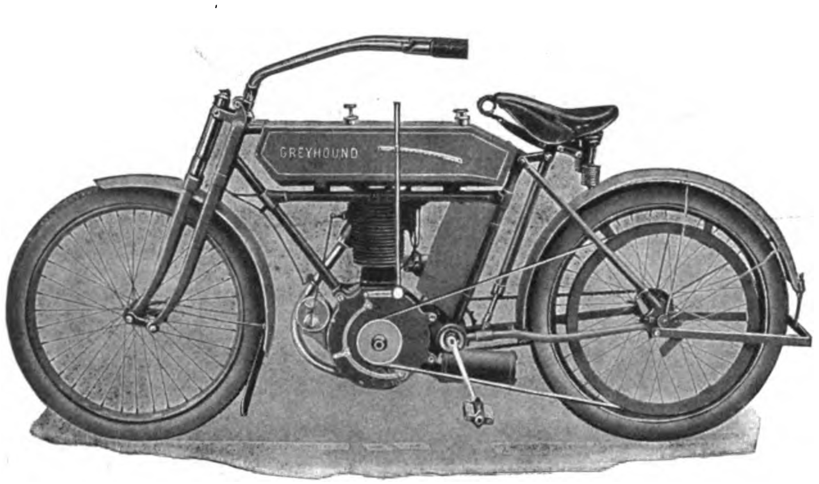
Owners and dealers should send for our circular showing proper attachments for every make of Spring Fork. This cannot be had elsewhere.

We can now furnish fittings for the following 1910 Spring Fork Machines:

Indian, Merkel, R.-S., Thor, Excelsior, Curtiss, Harley-Davidson, Yale, M. M., Marvel, Royal Pioneer, New Era, N. S. U., Greyhound, Pierce 5 and 7, Racycle, Emblem, Reliance, S. D. M.

Standard Thermometer Co., 65 Shirley Street, Boston, Mass.

THE SPLENDID GREYHOUND



will again be prominent at the Chicago Show, February 5th-12th. It is a thoroughbred in every respect and in addition to all the most popular features and highest grade characteristics it provides MORE SOLID COMFORT for the rider than any other motorcycle on earth! See the great

Greyhound Shock Absorber

and cushion fork.

We are glad to announce that "Whipple, The Motorcycle Man," 923 W. Jackson Blvd., Chicago, will distribute Greyhounds for Illinois, Wisconsin and Indiana, and is prepared to issue a live line of business talk to interested parties in said territory.

At Buffalo we are glad to hear from anybody about any motorcycle matter. Catalogs free for the asking.

GREYHOUND MOTOR WORKS

Member Motorcycle Manufacturers' Association

1459 Niagara St., Buffalo, N. Y.

SALES AGENTS: Metropolitan District—THE BROWN-DEWEY CO., 1697 Broadway, New York, N. Y.
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Troxel Eagle Motor Saddles

WAY IN THE LEAD

TROXEL EAGLE
MOTOR SADDLE

Length, 13¼ inches
Width, 12 inches

No mere accident this. It is workmanship, experience—"Know How" that makes

TROXEL SADDLES LEAD

We want you to know too all about that wood base **MOTOR SADDLE** we will have ready for delivery April 1st. It will be a sensation to the admirers of wood base motor saddles. It will have the name "TROXEL," which means *good stuff*. Catalog sent on request.

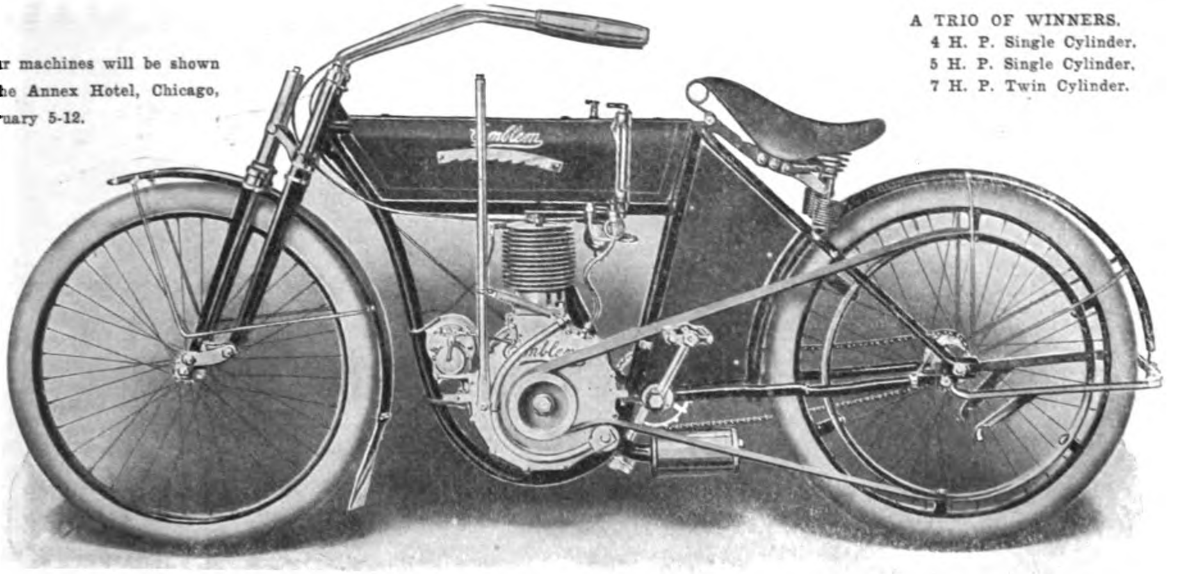
THE TROXEL MANUFACTURING CO., ELYRIA, OHIO

Class, Power, Speed and Satisfaction are the Appealing Features of the

1910 EMBLEM MOTORCYCLES

Our machines will be shown
at the Annex Hotel, Chicago,
February 5-12.

A TRIO OF WINNERS.
4 H. P. Single Cylinder.
5 H. P. Single Cylinder.
7 H. P. Twin Cylinder.



EMBLEM MANUFACTURING CO., Angola (Erie Co.), N. Y.

ALSO MANUFACTURERS OF THE EMBLEM BICYCLE.

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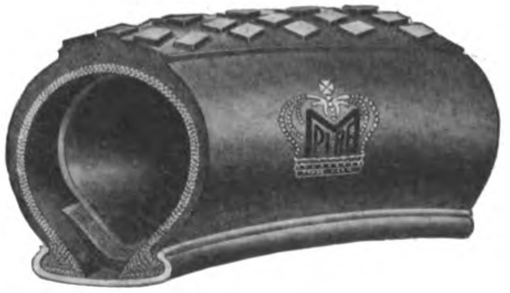
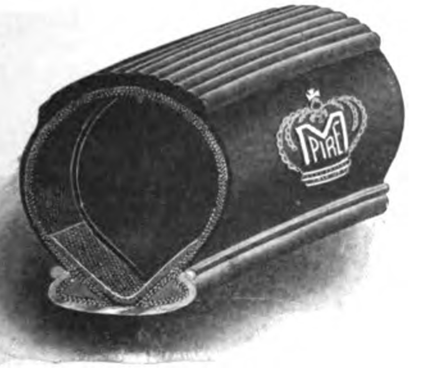
Empire Tires WEAR LONGEST

Empire molded motorcycle tires are extra heavy and extra strong. They are made to give proper service on the heavier and faster motorcycles now being generally made. The best quality of Sea Island fabric is used—closely woven, of the same type as used in automobile tire construction. High class rubber is used throughout, which will give great wear and withstand great abuse.

CORRUGATED TREAD TIRE

This design will aid greatly in preventing side slipping, without detracting from the resilience or easy-riding quality of the tire in straight riding.





The Checkered Tread is the best non-skid tire ever offered for motorcyclists' use. It is very handsome in appearance. The rubber used in the tread is of a composition that gives the largest possible service. One of these tires ought to be on the rear of every motorcycle, the year around, as a guarantee against dangerous side slips.

EMPIRE TIRE COMPANY

TRENTON, N. J.

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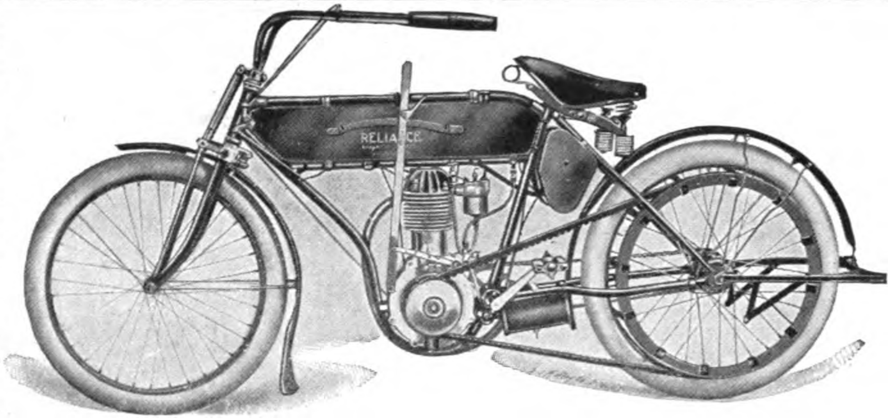
Here Is What You Have Been Looking For



A motorcycle with a neat, compact two speed and free engine pulley, that is simplicity itself in construction, positive in its action, whether in high, low or free engine position. **THINK OF IT!** Start engine on stand **ANYWHERE,** on the steepest hill or deepest sand, and then by just pushing forward a lever **YOU ARE OFF.** 5 to 1 on high, 9 to 1 on low.

WE WILL EXHIBIT AT THE CHICAGO SHOW

Model C as above, complete with the two speed pulley, $225.
Write for complete specifications of this and our 4½ H.P. Single and 7 H.P. Twin.

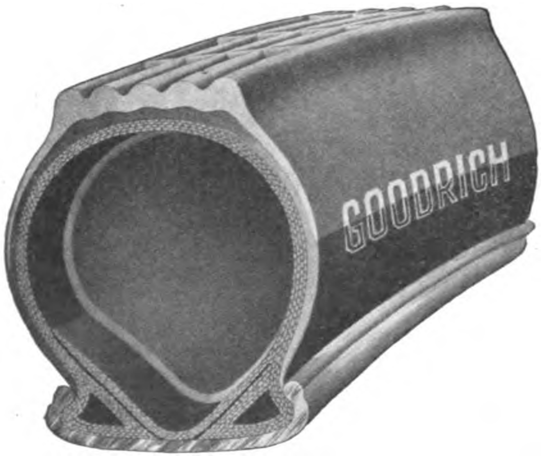
RELIANCE MOTORCYCLE CO., 444 Main St. Owego, N.Y., Tioga Co.

Member Motorcycle Manufacturers' Association.

THE GOODRICH

WHITE HEAVY TREAD

Motorcycle Tire



¶ The Shape of the Tread *distributes wear evenly.* No single corrugation gets all the rub, leaving the part of the tread most used without a preventive of skidding.

¶ The Tread has a *third more rubber* than any other make.

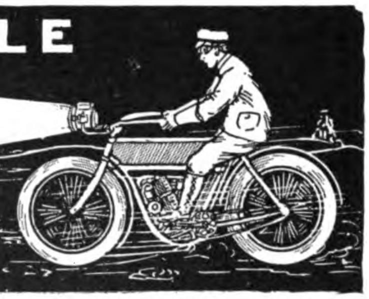
¶ It has *resilience* and *elasticity.* "The ridges bite in, grip the riding surface and *prevent skidding.*"

¶ *Four Pties of Fabric*—one more than any other make—guarantee durability.

¶ For Enduring Wear "The Goodrich White Heavy Tread Motorcycle Tire is a Motorcycle Tire built like an Automobile Tire."

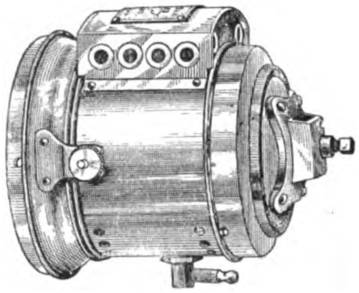
THE B. F. GOODRICH COMPANY, Akron, Ohio

THE 20TH Century MOTORCYCLE HEAD and SEARCHLIGHTS



GENERATOR No. 10

ARE you giving the same care to the selection of your lighting plant as to that of your Machine? If you are, your choice will be the 20th Century. ℭ If your Machine be provided with Flat Bracket order Lamp illustrated here; in any other case let it be Lamp No. 102, which is provided with side brackets which fit every Motorcycle. ℭ Send for catalogue.



SEARCHLIGHT No. 101

20th Century Mf'g Co

19 WARREN STREET, NEW YORK

1910 PITTSFIELD 1910

SPARK COILS, SPARK PLUGS, SWITCHES, TIMERS AND DISTRIBUTERS AND MAGNETOS

MADE IN AMERICA HAVE NO SUPERIOR IN THE MARKET

Magneto Spark Plug

The following testimonial was recently received by the Pittsfield Spark Coil Co., unsolicited.

"Columbus, Ohio, Oct. 11th, 1909.

"PITTSFIELD SPARK COIL CO.,
"Dalton, Mass.

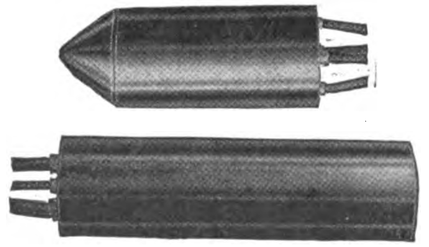
"Gentlemen:—

"I think you will be interested to know I am using the best coil "PITTSFIELD," on my run from San Francisco to New Orleans and New York.

"I have covered 5,763 miles, 2,022 on railroad cross ties, and have had a terrible trip. Have been out thirty-seven days and had no ignition trouble. Your coil has stood unreasonable endurance, exposed to water, heat and cold in many States.

"I am an old-time rider and one who knows a good thing.

"Yours truly.
(Signed) "H. F. MERIWEATHER."



Write today for particulars, catalogues, price lists and instructions.

A Line of Pittsfield Goods is carried by H. V. Greenwood, 166 Lake Street, Chicago

PITTSFIELD SPARK COIL CO., Flansbury Ave., Dalton, Mass.

Sales Representatives: **New England,** W. J. Connell, 36 Columbus Avenue, Boston. **Atlantic States,** Thomas J. Wetzel, 17 West 42nd Street, New York. **Central States,** K. Franklin Peterson, H. V. Greenwood, 166 Lake Street, Chicago. **Michigan.** L. D. Bolton, 319 Hammond Building, Detroit. **Pacific Coast,** The Laugenour Co., San Francisco.

The Neverout

TRADE MARK

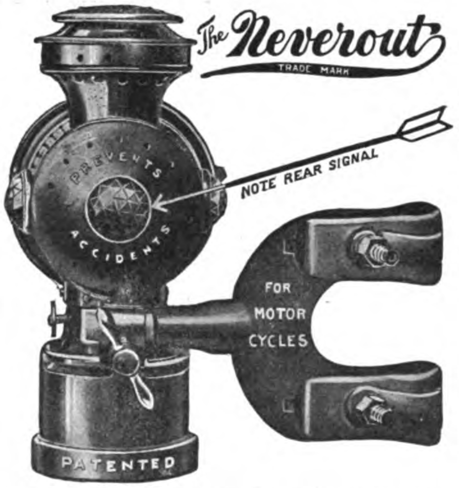
MOTORCYCLE OIL LAMP

SHOWING A RED REAR LIGHT

¶ The Neverout burns kerosene ten hours with one filling, and will stay lighted under any and all conditions. ¶ All riveted—will not rattle apart over roughest roads.

¶ Made in gun metal, brass or nickel finish

AN OIL LAMP THAT MAKES MORE LIGHT THAN MOST GAS LAMPS



Lamp Weighs Only 12½ Ounces

GUARANTEED TO STAY LIGHTED OR MONEY REFUNDED

¶ The Neverout is equipped with a PATENT GLASS COVERED REFLECTOR OF GERMAN SILVER, instantly removable, never loses its original brilliancy.

¶ The only perfect and reliable motorcycle lamp made.

¶ Double clamp bracket furnished, fastens lamp securely to fork of motorcycle. No danger of shaking off, and SHOWS RED REAR DANGER SIGNAL.

Sold by leading jobbers and dealers everywhere

ROSE MANUFACTURING COMPANY

933 ARCH STREET, PHILADELPHIA, U S. A.

The Neverout complies with the laws of the various States and Municipalities

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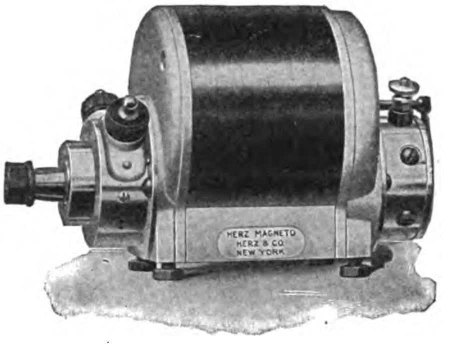
What YOU Want

is a fat HOT ARC FLAME at the First ¼ Turn of the PEDAL and ever after; that's why YOU WILL INSIST upon the

HERZ-Magneto

ON YOUR MOTORCYCLE



Thousands of Testimonials from delighted users.

Mr. E. W. Rietz says: "It's the best magneto made. My machine will run just as slow as a battery machine and is a lot more reliable."

EQUIPMENT ON:

EXCELSIOR	HARLEY-DAVIDSON
PIERCE	GREYHOUND
THOR	EMBLEM
YALE	WAGNER

"HERZ" Means Absolute Dependability

THE HERZ-PLUG

HERZ & CO.
NEW YORK

SPECIAL MAGNETO TYPE

"Bougie Mercedes"
is the famous
STONE PLUG
On the market for the last 15 years.
We guarantee
THE
HERZ PLUG
FOR ONE ENTIRE YEAR
to be *absolutely proof against oil or soot. Not to carbonize and not to break* it's undestructible *STONE.*

Price $1.50, postpaid.
At all good dealers.

IT MEANS A GREAT SAVING TO YOU

HERZ & CO., 295 Lafayette St.
NEW YORK

ARE YOU LOOKING FOR THE BEST IGNITION?

The Cartridge Two Battery Coil has demonstrated the right to be placed at the head of the list.

The following points bear out its claims to superiority.

THE LIGHTEST COIL (weighs 30 ounces) and does away with the weight of one dry battery besides.

IT WILL run your machine surely 1,000 miles, and even as far as 1,500, on two batteries, if the timer is tightly adjusted.

IT WILL start your engine on the FIRST STROKE and will not miss at the highest racing speeds, and will put you over hills easily.

IT WILL go in your three-cell battery box (size of coil 2½ in.x5¼ in).

JUST take out the battery and put the coil in its place.

IT is made RIGHT and should last for years, as the most expensive materials enter into its construction.

We were tempted to offer this coil a year ago, but had not then tested enough of them in actual, hard service to be able to say that it was absolutely the best we could offer. But a whole year of testing under the hardest kind of conditions and with a large number of standard coils has failed to show results less satisfactory than the best magneto ignition.

If you need a coil for that last year machine of yours or for the one you are going to get, don't fail to order a CARTRIDGE COIL.

Send for one To-Day, and if you think there is anything better to be had after 3 months' use, send it back and we will refund the price you paid us.

We make this offer because we know that you will not part with it after 3 months' trial.

Price, $8.50

Cartridge Coil Company
LAFAYETTE, INDIANA

Wagner
MOTOR CYCLES

"Proven Quality"

AT THE

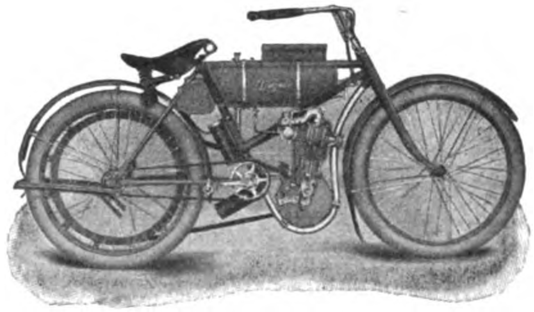
NATIONAL AUTOMOBILE SHOW

CHICAGO, FEB. 5-12

Owing to our inability to secure space at the Coliseum we will exhibit and make our

SHOW HEADQUARTERS
AT OUR
CHICAGO AGENCY
1610 Michigan Ave. 1 BLOCK SOUTH OF ARMORY

You and your friends and their friends will be right welcome



WAGNER MOTORCYCLE CO.
ST. PAUL

CHICAGO
1610 Michigan Ave.

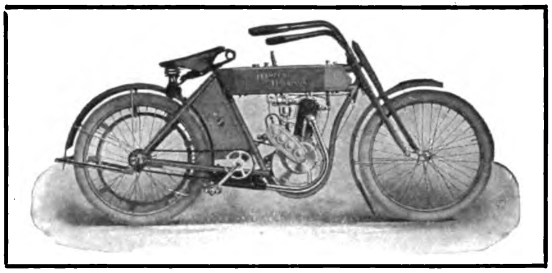
DETROIT
253-5 Jefferson Ave.

Red Head
Motorcycle
Plug
The latest addition
to the
Happy Family
of
Red Heads

Investigate the 1910

Harley-Davidson

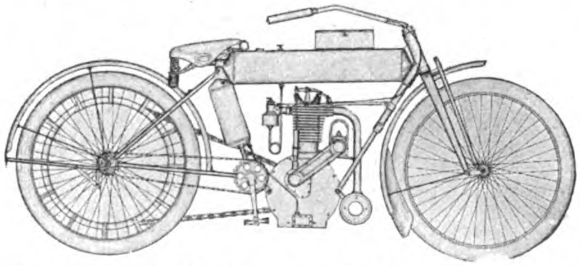
BEFORE YOU PURCHASE



YOU will be surprised how much motorcycle value you can get for your money

Harley-Davidson Motor Co.
Milwaukee, Wis.

THE MARVEL



Why You, Mr. Dealer, Should Sell the Marvel:

1 Because it has the Curtiss Motor that no single cylinder motor can equal

2 Because the Frame is extra strong and the Tanks, being a part of the frame, cannot dent or leak. 2 1-2 gallons, capacity

3 Every part is easily gotten at

4 The best of everything is used on the Marvel

5 Price $225 with Bosch Magneto and $260 with Two-Speed Pulley

6 You can not afford to let the other fellow sell the Marvel in your locality, so ask today for agency proposition.

Marvel Motorcycle Company
Hammondsport, N. Y.

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FOR
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AND OTHER
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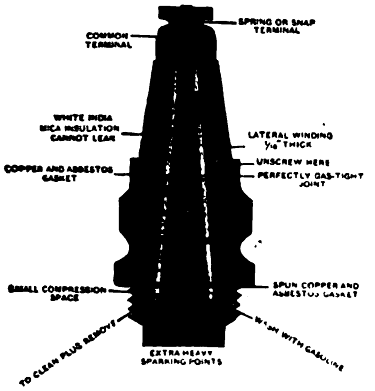
Postage Free

MOTORCYCLE PUBLISHING CO.
299 BROADWAY, NEW YORK

Many Plugs, But Only One SPLITDORF Motorcycle Plug

WILL OUTLAST YOUR MOTOR

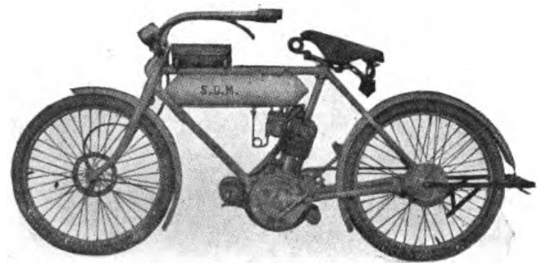

COMMON TERMINAL
SPRING OR SNAP TERMINAL
WHITE INDIA MICA INSULATION CANNOT LEAK
LATERAL WINDING 1/16" THICK
COPPER AND ASBESTOS GASKET
UNSCREW HERE
PERFECTLY GAS-TIGHT JOINT
SMALL COMPRESSION SPACE
SPUN COPPER AND ASBESTOS GASKET
TO CLEAN PLUG REMOVE
WASH WITH GASOLINE
EXTRA HEAVY SPARKING POINTS

Made expressly for Motorcycle use, and its superiority so clearly recognized that it is used by 75 per cent. of the leading makers.

C. F. SPLITDORF

Walton Ave. and 138th St.
Branch, 1679 Broadway
New York

S. D.
1910 Motorcycles



Patents Applied For

The Safest and Surest method of transmission has been applied to this beautifully designed **Motorcycle,** constructed to serve the utmost demands of each and every **Motorcyclist.**

Write for our circular matter that fully explains our **Shaft-Drive** system, and the many other commendable features of our **models.**

S. D. MANUFACTURING CO.
155 Ridgewood Ave. Brooklyn, N. Y.

LOOK

FOR THE NEW MODELS OF THE FLYING MERKEL MOTORCYCLE

At the Shows

CHICAGO	BOSTON
Feb. 5th to 12th, Coliseum Annex, Spaces 134 and 135	**March 5th to 12th, Mechanic's Fair Bldg., Dept. F, Spaces 581 and 582**

The Flying Merkel is the only motorcycle with a spring frame and fork. It's the most comfortable motorcycle in the world.

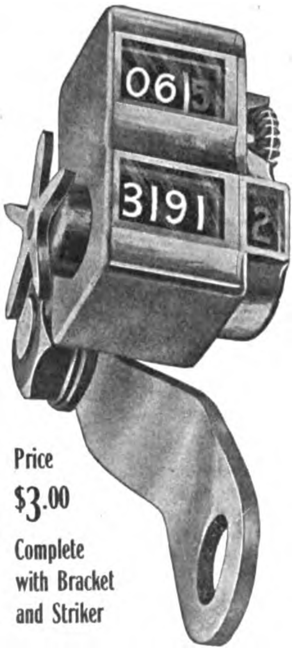
The 1910 models are not radically different from those of last year, still we have made some minor changes that are of distinct advantage to the rider. See them at the shows.

Prices run from $150 to $350.

If The Flying Merkel looks good to you ask us about an Agency proposition.

Merkel-Light Motor Co.
POTTSTOWN, PENNSYLVANIA
MEMBERS OF M.M.A.

Veeder Motorcycle Trip Cyclometer



Price
$3.00
Complete with Bracket and Striker

Made heavy and durable for the hard usage it receives on the Motorcycle.

Adjustable Bracket fits all makes of machines.

Large and strong striker.

Made for 24 in., 26 in. and 28 in. wheels.

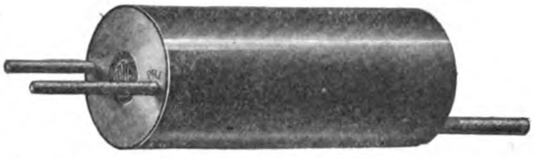
The Veeder Mfg. Co.

42 Sargeant St., Hartford, Conn.

Makers of Cyclometers, Odometers, Counters, Tachometers, Tachodometers and Die Castings

PFANSTIEHL COILS

FOR MOTORCYCLES ARE GUARANTEED FOR FIVE YEARS



The Famous Pfanstiehl Pancake system of winding, combined with a perfect balance of parts, and high grade construtcion, assures you of INDESTRUCTIBILITY, UNIFORMITY, RELIABILITY, and a strictly high grade coil at a reasonable price.

Constructed for use in connection with either 2 or 3 dry cells. Balanced to meet special requirements.

The New Pfanstiehl Motorcycle Magneto

FILLS A LONG FELT WANT

Strong and substantial in construction, though neat and compact in appearance.

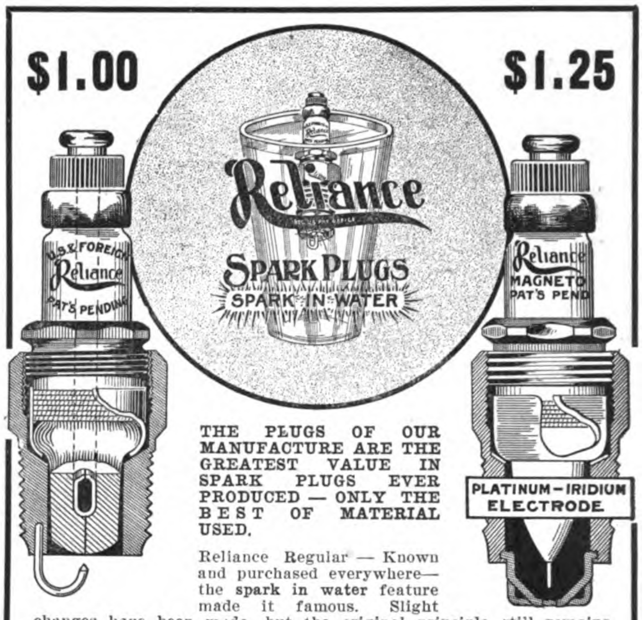
Constructed by Pfanstiehl patented methods and covered by Pfanstiehl broad guarantees.

Not an experiment, but something a little more advanced than anything you have yet seen.

Don't fail to test this machine before closing contracts. Our prices will command your immediate attention and interest.

Pfanstiehl Electrical Laboratory
NORTH CHICAGO, ILL.

$1.00 **$1.25**



THE PLUGS OF OUR MANUFACTURE ARE THE GREATEST VALUE IN SPARK PLUGS EVER PRODUCED — ONLY THE BEST OF MATERIAL USED.

Reliance Regular — Known and purchased everywhere—the **spark in water** feature made it famous. Slight changes have been made, but the original principle still remains untouched. Our output is enormous—it enables us to sell the best manufactured plug at the price of the ordinary—$1.00. Ask your dealer or send direct.

Reliance Magneto—Made for those who desire a magneto plug constructed on Reliance principles. Workmanship and material used consistent with that used in all the plugs of our manufacture. This plug is recommended where an excessive amount of oil is used. Ask your dealer, he sells it for $1.25; or send direct.

JEFFERY-DEWITT CO.
Spark Plug Manufacturers, 230 High St., Newark, N. J.
S. & F. Stephenson, Agents for United Kingdom, 19 Canning Place, Liverpool, Eng.
Armand Frey & Co., Agents for Continental Europe, Berlin, Germany.

Prest-O-Lite
Gas Tank

As Necessary on Motorcycles As on Automobiles

A poor light is both a nuisance and a standing invitation to danger, accident and expense.

Prest-O-Lite gives steady, strong and reliable illumination. The only really economical system.

Prest-O-Lite Tank (Motorcycle Size), 12 inches long; 4 inches diameter. Weight, 7 lbs. Holds 10 ft. of gas—40 to 60 hours of light. This size is also used on automobiles, as a reserve supply.

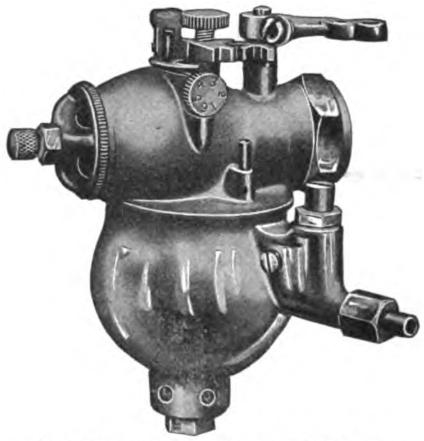
PRICE $10. **Full tank in exchange for empty** **60c.**

The Prest-O-Lite Co. **246 E. South St**
Indianapolis, Ind.

Branches at New York, Boston, Philadelphia, Cleveland, Chicago, Detroit,
Providence (R. I.), Minneapolis, Omaha, Dallas, Los
Angeles and San Francisco

4000 EXCHANGE AGENTS

Heitger Model F
1910 Motorcycle Carbureter



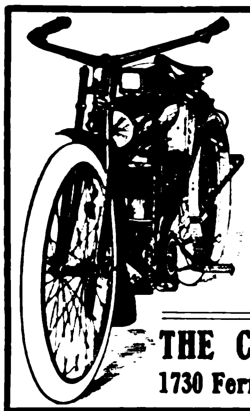
¾ inch Female threads, cut ½ full size.

It has mechanical control of gasoline feed to mixture, independent gasoline adjustments for both low and full speeds, indexed adjusting screws, throttle universal, can be set to operate from either side, straight line gasoline connection, new design float chamber, can be swiveled to any position, its shape reduces splashing of liquid to the minimum, handy priming stem, improved, durable, reliable air valve, all gasoline adjusting screws indexed, and ball rachet retained, all balls and springs of bronze.

¾ inch female pipe threads. List $10.00. Fully guaranteed.

HEITGER CARBURETER CO., Indianapolis, Ind. 208 West South St.

Being Adopted by Manufacturers for 1910.



YALE MOTORCYCLES

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Most Economical to Operate.
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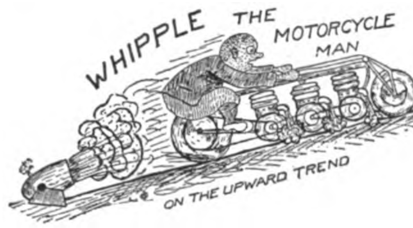

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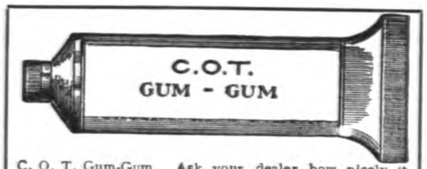

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MOTORCYCLE
ILLUSTRATED
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CHICAGO SHOW A RECORD-BREAKER

Every Reasonable Expectation of Trade Folks Realized in the Business Actually Transacted and in the Prospects Which Came to Light.

LYING flat on the vast prairie lands of the Middle West, the city of Chicago, big and, from an Eastern standpoint, comparatively isolated, easily dominates a territory imperial in extent, wealth and population. Travelling from the direction of New York, the stranger, after leaving Cleveland, finds little to interest him except the thought what somewhere ahead—so many hours of train time—is the marvellous metropolis of the Middle West. Gotham is completely surrounded by scores, aye hundreds of more or less important suburbs looking to Manhattan as the source of almost everything worth while of which they may boast. Chicago, however, is—well, just Chicago, but with that the Gateway to and from a tremendous, almost incomprehensibly wealthy country. Chicago's history dates back only a generation or two ago. Planted on the lake-side, for many years the city only grew; it is only of late that it has begun to develop, to mould itself into recognizable shape. But there's no denying that Chicago is big and progressive, a city of vast achievements and illimitable possibilities, a means, as it were, of superbly combining in a rather heterogeneous whole the virility of the West with everything else of any value in serving the purpose of a gigantic ambition—that of making Chicago the greatest city in the world.

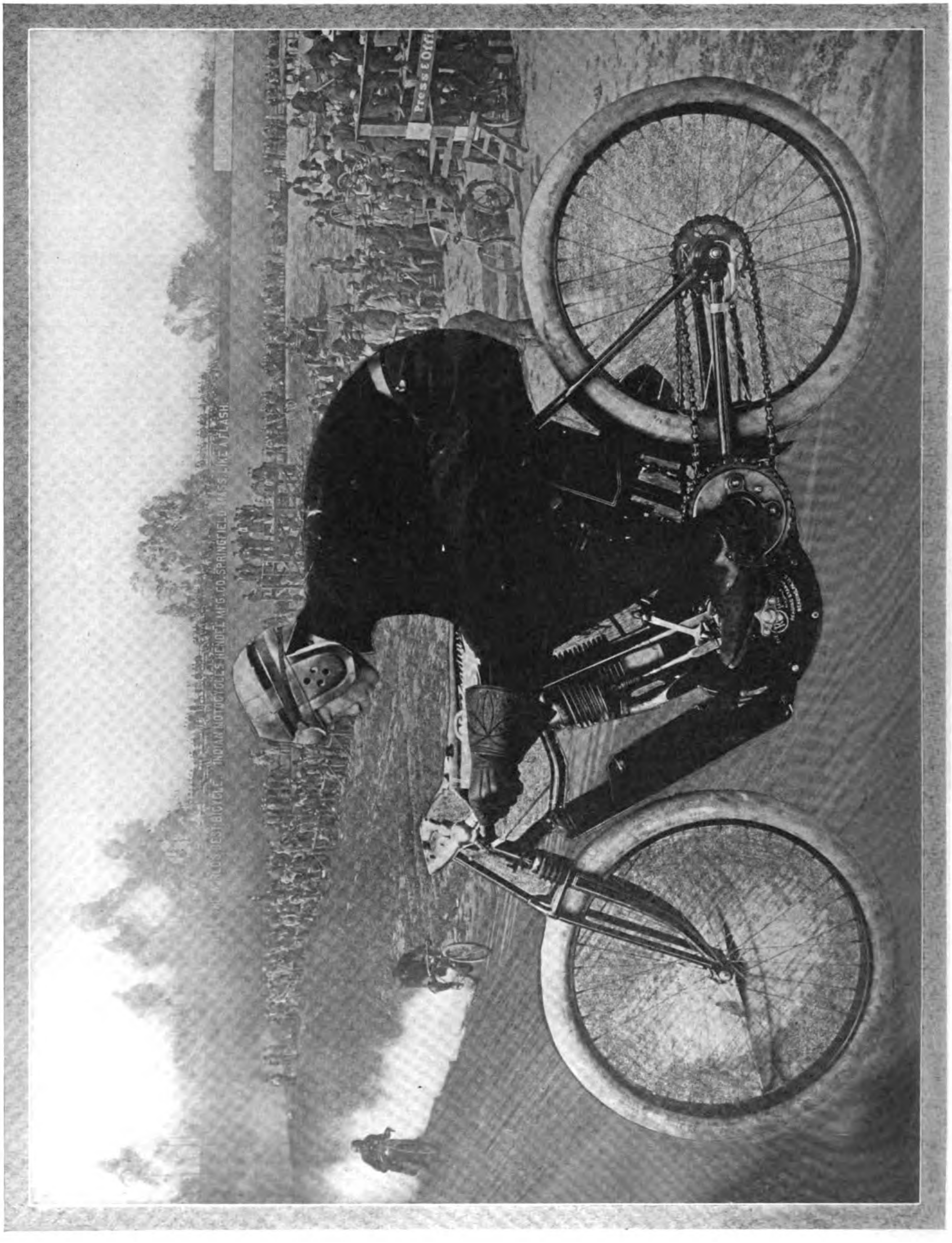
Chicago's powers of absorption are remarkable. That makes it utterly out of the question to be specific in describing it. Chicago is everything, and more than that—meaning that it requires impossible phraseology to do anything like justice to the situation. For to say that Chicago was simply big would be decidedly unfair; to declare, on the other hand, that its qualities might be accurately set forth and enumerated, would be absurd. But the gist of the matter is that your Chicagoan has already forgotten the city's brief history and is too intensely occupied to really "size himself up." The endeavors of others to do so amuse him immensely, or, rather, he simply does not care. He knows that when he does things he does them well, in a wholly incomparable way. That conviction quite compensates for his inability to look down long "corridors of time" or to give himself any particular characterization.

MOTOR SHOW A BRILLIANT SUCCESS.

The people of Chicago have just brought to a most successful conclusion another Motor Show. Has it demonstrated that the West can vie in motor enthusiasm with any and every other part of the country? Have you, "gentle" reader, ever entertained any doubts on that score? If so, dismiss them from your mind instanter, and be sure to properly screen your idea inflow lest it again clog your mental car bureter. It would be hard to conceive a better show than the one which came to a close last Saturday night. The exhibits were right up to the mark, the attendance extraordinarily large, the decorations simply wonderful, the enthusiasm in excess of the fondest expectations of the most optimistic, and the purchasing ability of almost every interested person such as to give a wonderful impetus to the trade. Of course, the cars were the bigger things in more than merely size, but it must not for a moment be imagined that the reception accorded to the little fellows in the motor world was anything less than exceedingly gratifying. For several years, Chicago has outdone its big sister city insofar as their respective outputs of motorcycle enthusiasm are concerned. And it has been the kind of enthusiasm that is backed by ready cash, the sine qua non of every industry. The show attracted dealers from a vast territory, extending hundreds of miles to the West, South and even to the East. And in almost every case they were men who come prepared to do business because of their recognition of the fact that the motor-driven two-wheeler had developed excellent trade possibilities. The interest shown at the show confirmed and solidified this thought of theirs, with the result that the making and acceptance of agencies was practically a continuous performance in Motorcycle Row all week long. Most of the motorcycle exhibits were staged on the second floor, or the balcony, of the Coliseum annex. Away from the main group were shown the Reliance, New Era and Emblem, while the Wagner, Racycle and Crown, the makers of which were unable to obtain space, attracted many to neighborhood stores, hired for the occasion. Motorcycle Row was small and compact, space being at a premium, and still the arrangements were such as to permit the manufacturers to show their machines to good advantage. The entire room had been transformed into an arbored garden and the general effect, including the atmosphere, was quite wholesome.

EXCELSIOR AND THOR.

AT the head of the Row was staged the exhibit of the Excelsior Supply Company, represented by Messrs. Hart, Woodward and J. S. Tormey, who is about to leave for the Pacific Coast to develop Excelsior interests there. The Excelsior folks have two fine stores along Michigan avenue, and their machine is so well known in Chicago that very few of the show visitors had to be introduced to the merits of the 1910 models. Similarly with the Thor, shown just across the aisle by the Aurora Automatic Machinery Company. Here Sales Manager Sherman, Archie McCullough and George L. Lyons held forth. McCullough and Lyons have just joined the Thor forces. The Excelsior and Thor folks, of course,


BEST BICYCLE — INDIAN MOTOCYCLES HENDEE MFG. CO. SPRINGFIELD MASS. LIKE A FLASH
Press Office

Raymond Seymour, a Promising Amateur—Los Angeles Coliseum In The Background.

had little occasion to explain. Almost everybody knew the principal characteristics of these two makes, of which the Chicago boys are justly proud. However, the specifications of these two machines, in fact, those of every other machine shown at Chicago, have already been given in this paper and need not be referred to here. The sturdiness of the Excelsior and its known reliability were generally commented upon, as were the track achievements of the Thor and the possibilities inherent in the new IV.

HARLEY-DAVIDSON.

ADJOINING the Excelsior exhibit was that of the Harley-Davidson Motor Company, presided over by Messrs. Arthur and Walter Davidson. The Davidsons always look forward with eager anticipation to the Chicago Show, and they have yet to experience their first disappointment. In addition to making a number of new contracts and renewing many old ones, they were in exceedingly high spirits over the second order, from their Pacific Coast agents in Los Angeles, for a carload of machines. This is quite unprecedented in the history of the sport—two carloads sent out to the same firm in such rapid succession. The second order is for fifty-five machines, forty of which are to be Model 6, the battery single.

GREYHOUND.

THOSE in charge of this exhibit were W. C. Overman, vice-president and general manager of the Greyhound Motor Works; I. H. Whipple, who has just taken the Greyhound agency for Chicago, and C. B. Hall, of the factory. Mr. Overman laid particular stress upon comfort as a factor in promoting motorcycling interest. He is prouder than ever of the Greyhound spring fork and shock absorber and is convinced that these two features are making converts of many who would otherwise fail to take up the sport.

N. S. U. MOTOR COMPANY.

THIS firm managed to obtain, a few days before the opening of the show, the space engaged by the Hornecker Motor Company. Manager E. C. Kicherer was assisted here by Eddie Lingenfelder, who had just returned from an extensive tour in the West. Several important agency propositions were pending when the writer left Chicago. These will be announced in our next issue. However, Mr. Kicherer closed with the American Motor Cycle Company, 1352-58 Wells street, to handle the N. S. U. in Chicago. This is a valuable addition to the N. S. U. selling force.

INDIAN.

A FULL line of 1910 models was shown by the Hendee Manufacturing Company, the demonstrators of Hendee-Hedstrom excellence being P. B. Whitney, Chicago representative; Frank J. Wechsler, sales manager, of Springfield, and Harry Mueller, Fred Huyck and F. D. Shomo. Messrs. Hendee and Hedstrom attended the show during the early part of the week. Among the new Hendee agencies are those of E. C. Barber, for the southeast side of Chicago; P. R. Bremer, Zanesville, O.; Sayre & Company, Terre Haute, Ind., and W. F. Hemingway, Arcola, Ill.

YALE.

AROUND the corner from the Indian exhibit we found the Yale, where a bunch of "real business," as he called it, was being done by A. B. Coffman, assisted by F. L. Hunt, travelling representative; R. S. Mattoon, Chicago agent; A. R. Horn, of the Yale Motor Company, of Minneapolis, and A. R. Oberwegner, Toledo agent. The Yale folks, pleased beyond expression with the all-week running of a Yale motor in Toledo, as described elsewhere, distributed a neat little booklet, in getting which into shape Coffman had shown some more of that enterprise for which the Consolidated Manufacturing Company is so favorably known.

READING-STANDARD.

AGENCY contracts were made almost continuously at the R-S. stand, in charge of W. F. Remppis part of the week and, in his absence, of C. A. Mariani, assisted by F. M. Clark, travelling representative; W. G. Rhodes, Philadelphia agent; Hess & Musselmann, Chicago representatives, and E. W. Hoag, of the factory. Among the R-S. agencies established are the following: Irving Flannigan, Thornton, Ill.; Phelps & Neihaus, Quincy, Ill.; Stierle Bros., Marshfield, Wis.; W. T. Stadel, Grand Rapids, Mich.; J. J. Bergen, Dayton, O.; Franklin Cycle and Supply Co., Columbus, O.; Rellig & Watson, Wabash, Ind.; A. L. Johnson, Rockford, Ill.; Omaha Motor Cycle Co., Omaha, Neb., W. E. Dewey, manager; H. C. Rath, Lafayette, Ind.; Geo, C. Detch Wheel Co., Indianapolis, Ind.; P. N. Bushnell Co., Aberdeen, S. Dakota, North and South Dakota; I. Talbert & Sons, West Elkton, O.; Peoria Plumbing Co., Peoria, Ill.; Henry H. Schrottky, Oshkosh, Wis.; Harry Tubman, Lincoln, Neb.

PIERCE.

SALES MANAGER JOHNSON and Elbert Jenkins, travelling salesman, demonstrated the beauties of the four and the single to the satisfaction of many interested persons. The great strength of the Pierce tank-in-the-frame construction is proven by the fact that every conceivable test has been successfully withstood since this type of frame was placed on the market a year ago. The tubing is of 18 and 16 guage, all the main tube flanges are riveted and brazed and the ends are of malleable steel, a combination which easily explains why the Pierce frame—though a radical departure—has given such an excellent account of itself.

MERKEL-LIGHT.

EDWARD BUFFUM, W. F. Mann and G. C. Court talked Merkel-Light speed, comfort and reliability at this stand, a large one, containing a full line of the 1910 models. "This is the machine that Kellogg rides," was the way almost every visitor introduced the orange-colored beauties to his unknowing friends. It is evident that the fame of this plucky little rider is national, for everybody at all interested in a motorcycle seems to know Kellogg. The Merkel-Light folks established a likely lot of agencies during the week, including one at Milwaukee, with Fred Braemer in charge.

M. M.

R. A. PICKENS, manager of the American Motor Company's branch at Dallas, Tex., was in charge of the Brockton concern's exhibit. He was assisted by E. C. Miller, one of the company's travelling men. Mr. Miller, by the way, has so satisfactorily safeguarded M. M. interests that the American Motor Company has arranged to have him take charge of the M. M. branch about to be established in Indianapolis. While on his way to Chicago, Miller established an M. M. agency at Evansville, Ind., and also placed a machine with the Kokomo police department. Reports from all over the country indicate that the 4 h. magneto single is achieving a popularity far and away in excess of the makers' anticipations, and it may be said that these were quite big.

EMBLEM.

OVER in the Armory balcony, perched high up in the air, and keeping company with Mesinger saddles and auto recoil springs and shock absorbers, a handsomely nickelled Emblem and another finished according to stock specifications attracted no little attention and caused much favorable comment. This paper's representative called at the Emblem stand no less than four times, but on each occasion the company's demonstrator was so busy that the scribe had no opportunity to have even a two-minute confab with him. The Emblem people, sound business men under the leadership of W. G. Shack, have put into this year's line, which for the first time includes a twin, honest material, just enough ingenuity to produce up-to-date and at the same time thoroughly practical machines, and, finally, skilled and careful workmanship. The result is altogether fine.

RELIANCE.

W. H. IVES, Ward Decker and J. M. De Lezene made a decided hit with the improved Reliance, to which several refinements had been added since its appearance at the Garden. A notable feature is its double ignition system, fitted at the purchaser's option, at an extra cost of only $5. to all models except "C." Then, too, a new tank design has been adopted. Other exclusive Reliance features are its truss spring fork and flexible tubing for the conveyance of gas and oil from the tank to the points of consumption. A Reliance model was shown with its two-speed gear in operation, and fitted with a most unique, substantial and apparently practicable tandem attachment, comprising a most comfortable leather upholstered double seat stoutly yet simply attached to the rear axle.

NEW ERA.

SOMEWHAT isolated from the other exhibits was that of the New Era Autocycle Company, in charge of the junior Turpin. The New Era folks are no longer experimenters in frame design. They feel that their novel form of construction has made good, and disinterested observers are generally in agreement with them. The new big single, making two models in all, possesses a sturdiness and gives such assurance of comfort and reliability that it is tempting many who heretofore have fought shy of the motorcycle.

RACYCLE.

ACROSS the way from the Coliseum, at 1428 Wabash avenue, K. R. Jacoby, E. M. Jackson, F. P. Lee and Charles Schumacher were constantly occupied in pointing out the fine features which distinguish the Miami product—the Racycle. This machine has been fitted with a new control, which seems to be about as simple and as easily operated as such a device can possibly be. A little more than a half turn of the wrist completes the lifting of the exhaust valve. The Miami folks are incidentally establishing agencies in a most consistent manner, among their recent appointees being the following: Charles Sonneborn, La Porte, Ind.; Hays & Bolmer, Clinton, Ind.; N. B. Appleton, Walkerton, Ind.; Knaak & Zehms, Cheboygan, Wis.; C. E. Wyath. Newark, O.; Mr. Nicollett. Champaign, Ill.; Nebraska Cycle Co., Omaha, Neb.; Martin Ebsen, Clinton, Iowa; C. H Whitmore, South Bend, Ind.; C. A. Fenn, Bloomington, Ill.; L. J. Thiess, Rockford, Ill., and Edward, Zeiman, Two Rivers, Wis.

WAGNER.

ELSEWHERE in this issue will be found some further details regarding the make-up of the Wagner, which was shown at the company's new Chicago headquarters, the Racine Boat and Manufacturing Company, 1610 Michigan avenue. George Wagner and Sales Manager Ed. Worthington were in charge of the company's exhibits. The fact that they were unable to obtain space at the show affected them not in the slightest, for the place was always crowded, not with the merely curious, but with interested folk, particularly middle and far Western agents, to whom the touring excellencies of the Wagner roadsters appeal with compelling force.

CROWN.

THIS was the only newcomer shown at Chicago, a handsome model of this make, produced by the Great Western Manufacturing Company, of La Porte, Ind., being shown at 1254 Michigan avenue. Here the Messrs. Lonn, E. J., Charles and Arthur, respectively, waxed enthusiastic over their new "baby." The Great Western Company, it will be remembered, built the America in years gone by, and although it now has the appearance of extreme antiquity, it was quite a marvel of the period when motorcycle building was more of an experiment than anything else. However, that has nothing to do with the Crown, which, fully described in our February 1st issue, is a "hummer." One does not have to draw upon the imagination to predict a brilliant future for this machine.

SOME OF THE ACCESSORIES SHOWN AT CHICAGO.

TIRES: Empire Tire Co., Trenton, N. J.; Morgan & Wright, Detroit, Mich.; Ajax-Grieb Rubber Co. New York; Consolidated Rubber Tire Company, New York; Hartford Rubber Works Company, Hartford, Conn.; Fiske Rubber Company, Chicopee Falls, Mass.; G. & J. Tire Company, Indianapolis, Ind.; B. F. Goodrich Company, Akron, O.; Goodyear Tire & Rubber Company, Akron, O.; Pennsylvania Rubber Company, Jeannette, Pa.; Diamond Rubber Company, Akron, O.

Magnetos: Herz & Co., New York; Witherbee Igniter Company, New York; Holley Brothers, Detroit, Mich.; Lavelette Company, New York; Wheeler & Schebler, Indianapolis, Ind.; Remy Electric Company, Anderson, Ind.; C. F. Splitdorf, New York.

Spark Plugs: Herz & Co., New York; Witherbee Igniter Company, New York; E. M. Benford, Mt. Vernon, N. Y.; C. F. Splitdorf, New York; United Manufacturers, New York; Remy Electric Company, Anderson, Ind.; Never-Miss Spark Plug Company, Lansing, Mich.

Oils: Joseph Dixon Crucible Company, Jersey City, N. J.; Havoline Oil Company, New York; Adam Cook's Son, New York; A. W. Harris Oil Company, Providence, R. I.; National Carbon Company, Cleveland, O.

Chains: Diamond Chain & Manufacturing Company, Indianapolis, Ind.; Whitney Manufacturing Company, Hartford, Conn.; Baldwin Chain & Manufacturing Company, Worcester, Mass.

Lamps: American Electric Novelty Manufacturing Company, New York; Badger Brass Manufacturing Company, Kenosha, Wis.

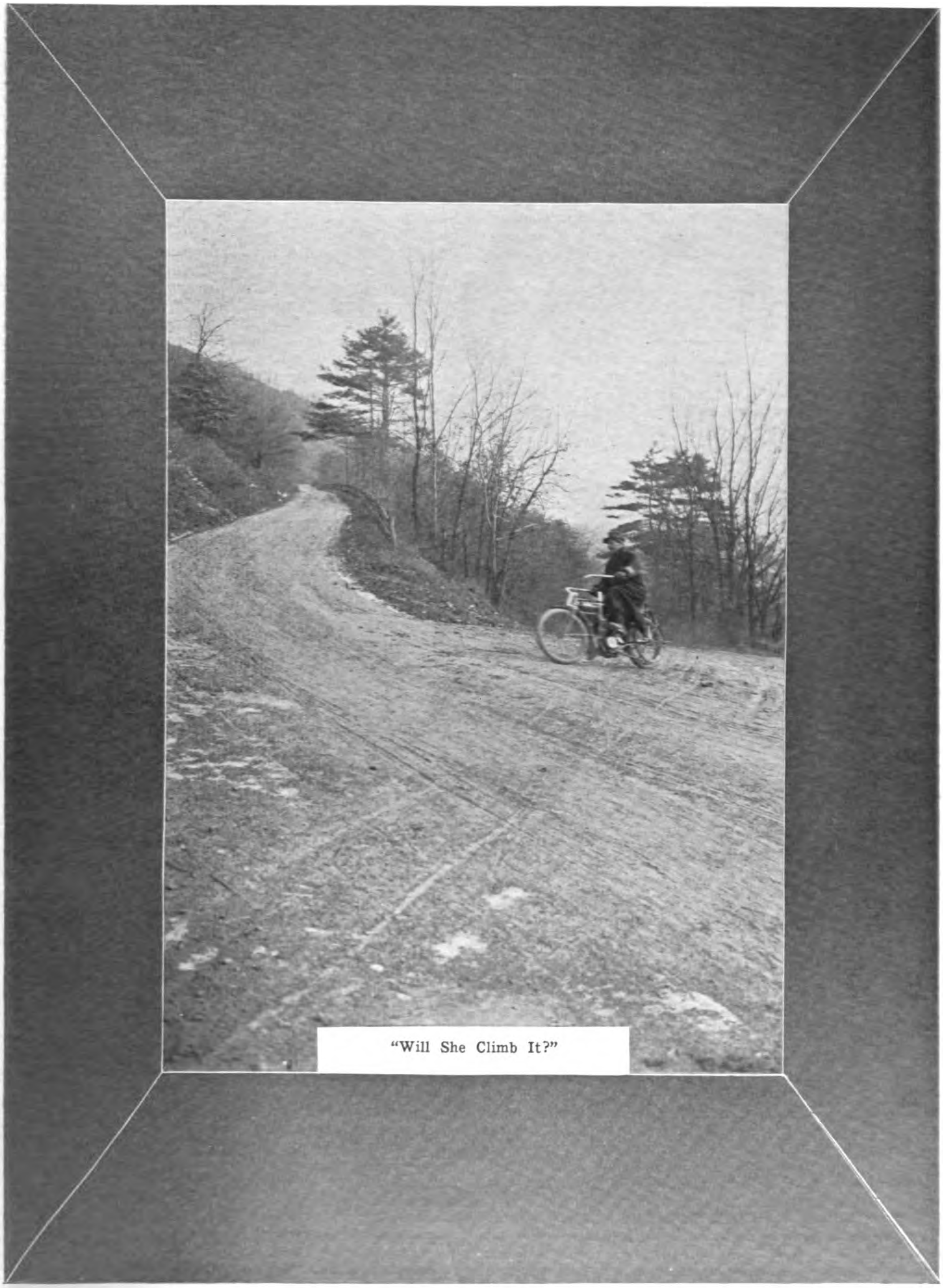
Carbureters: Breeze Carbureter Company, Newark, N. J.

Saddles: H. & F. Mesinger Manufacturing Company, New York.

MANUFACTURERS' ASSOCIATION MEETS DURING SHOW WEEK.

AT the Chicago meeting of the Motorcycle Manufacturers' Association there were present Messrs. Geo. M. Hendee, of the Hendee Mfg. Co.; Fred Robie, of the Excelsior Supply Co.; Edward Buffum, of the Merkel-Light Motor Co.; Arthur Davidson, of the Harley-Davidson Motor Co.; E. C. Kicherer, of the N. S. U. Motor Co.; Geo. M. Hornecker, of the Hornecker Motor Manufacturing Co.; W. C. Overman, of the Greyhound Motor Works; W. F. Remppis, of the Reading Standard Co.; Geo. W. Sherman, of the Aurora Automatic Machinery Co., and Mr. Johnson, of the Pierce Cycle Company.

The Consolidated Manufacturing Company was admitted to membership. Another matter of interest was the report of the Traffic Committee to the effect that while it had not yet obtained the one and one-half classification for freightage west of the Mississippi, the vote against making this concession was very close, and the probabilities were that the association would succeed in obtaining it next year. Mr. Remppis was instructed to take up with the proper authorities the question of holding a separate show at Chicago and of obtaining the entire basement at Madison Square Garden. The meeting adopted resolutions in memory of Francis P. Prial. The next meeting wil be held at Buffalo on April 20.



"Will She Climb It?"

F. P. PRIAL—THE MAN AND HIS WORK

By R. G. BETTS in the *Bicycling World*

FRANCIS P. PRIAL was a credit to the newspaper craft. He was a credit to cycling; a credit to motorcycling; a credit to his name. He was a good friend, a poor enemy. He loved the truth; he despised deceit. He played a man's part in a man's way. He added more than a man's share to the betterment and the brightness of this sphere. His life was clean and wholesome. He was true to himself, to his family and to his friends—and he knew how to distinguish mere acquaintances from friends, though his sensitive spirit on occasion made it appear otherwise. He lived a useful—a purposeful life. He well merits that sweet rest which comes when life's fitful dream is o'er, and which his nervous, throbbing energy too much denied to him in this world.

MR. PRIAL was 46 years of age, and unmarried. He leaves two brothers and a sister, to the latter of whom he was especially devoted. He was born in New York and, always an apt scholar, he graduated from the New York City College, and soon thereafter drifted into journalism. He was interested in athletics and was one of the organizers and treasurer of the Olympic Athletic Club, an organization which in the early 80's turned out several champions. This interest led him to the *Amateur Athlete*, which was his first journalistic connection. In 1886 he became editor of *The Wheel*, which after several evolutions soon became his property. At that time it was not much of a property. The field was small and lean and that *The Wheel* was kept going is not the least of the tributes to Mr. Prial's ability. He was without means and for several years the struggle to make ends meet was a heart-breaking one. But the young owner stuck to it and his perseverance overcame all obstacles. As the cycling movement developed, he developed with it; he became a strong figure in its affairs. A facile pen assumed a fine point. An omniverous reader to the very hour of his fatal illness, he was uncommonly well read. He loved books—good books. Often he read them from night until morning. Hugo, Dumas, Macauley, Shakespeare, Thackeray, Emerson—all were intimately familiar to him. They assisted in giving him a style such as is possessed by few, if any, men restricted to class journalism. He became a gifted writer—clear, crisp, strong, incisive. Beautiful and original similes, and whole trains of expressive adjectives simply rolled from his pen. Some of the editorials he wrote were not short of masterpieces, and not a few of them were written on the spur of the moment and with remarkable speed, for Mr. Prial was lightning fast. In a wider sphere he probably would have become a critic or literateur of national prominence. But as *The Wheel* attained strength and waxed fine and large, he devoted constantly lessening time and attention to writing and buried himself in the purely commercial affairs of his enterprise. His gifts, however, made him a splendid correspondent. He indited splendid business communications, and his personal letters, many of them, were gems worth treasuring.

When practically he ceased editorial work and turned over that duty to others he gave them a free hand. Intense, impulsive, impressionable, highly nervous and subject to alternate moods of elation and depression, Mr. Prial knew his failings. To his editor he suggested or requested—he rarely gave instructions—that his occasional writings be handled as ruthlessly as those of the humblest penny-a-liner, and when they failed to appear in print, he rarely asked the reason why, and then usually with a quip or jest. He subordinated his judgment and his quick agreeing "Yes, yes; you're right; you're right!" was familiar to nearly all with whom he ever entered into discussion.

From its humble beginning *The Wheel* became a handsome property. In the heyday of cycling it occupied several floors of a big New York building, the plant including some 20 presses and binding machines. The printing plant was too large for its work; it proved a steady drain, and to help equalize matters and with an eye to the future, Mr. Prial purchased a dry goods publication, which already had wasted several small fortunes. With it, he acquired a couple of high-priced and heaven-kissed "geniuses," the chief of whom was a book lover like himself, and able to discuss art, authors, poets, music and similar whatnot—a quality that appealed strongly to the impressionable side of Prial's nature, and that induced him many times and oft to forget and forgive an uncommon appetite for drink and uncommon absences and dereliction of duty. It was a generous trait that cost him dear. The dry goods journal never earned a penny. Each week for several years it drained Mr. Prial's and *The Wheel's* resources, and when the bicycle craze, as such, spent itself, and the industry rapidly began to contract, Mr. Prial was ill prepared to meet the strain. When the crash came, almost his last dollar went with it. In 1900 the *Bicycling World* purchased and took over what remained of *The Wheel*—a mere shell—and it ceased to exist. His great loss was a terrible blow to a sensitive nature. His depression was great, and always inclined to seriousness and self-isolation, Mr. Prial for a considerable period held aloof even from those who knew him intimately and well, to whom always he was "F. P." But he recovered his spirit and energy and helped establish *The Motor Boat*, which he did much to build into a splendid property. He disposed of his interests in it about three years ago, and a little less than two years ago he took over the MOTORCYCLE ILLUSTRATED, then a weak, colorless sheet. He breathed into it some of his fire and talent and so revolutionized it that not even its fathers now would be able to recognize it. In it there have been occasional flashes of that penwork of which only "F. P." was capable.

Mr. Prial was intimately acquainted with all the big men of the cycle trade and of the sport as well. He was much interested in the L. A. W., and early served without pay as its official handicapper for the whole country. He held several minor offices, but when it was transformed into a semi-political machine, with a string of salaried offices and retainers drawing fees, which became the political spoils, he withdrew from active participation in its affairs. In his time he always was in demand as referee, judge or timer, and few men were more capable. His quick eye was a marvel in placing men in close finishes. When he became interested in motorcycling he, of course, became interested in the F. A. M. His interest was beginning to take active form, and that an uncommonly useful member has been lost is undoubted. About the last service he performed was to attend the meeting of the committee which revised the constitution and by-laws. He took to his bed that very evening, and never left his room thereafter.

"F. P." was a loyal son and brother—an unusually loyal one—and an equally loyal friend. If he knew how to criticize, he was equally generous and equally capable of bestowing charming praise. He was as sensitive as a child, as warm hearted as a woman, but he did not carry his heart on his sleeve. Only those who knew him best knew his real worth.

OWING to an error in lettering the blue-prints in all descriptions of the Indian two-speed gear, which have been published, it appeared that the drive from the motor was through the small countershaft sprocket, and from the large sprocket to the rear wheel. It should be explained that the arrangement of the driving chains on the two-speed machines is identical with the regular models, the motor being coupled to the large countershaft sprocket.

A FINE RIDE THROUGH THE TWIN CITIES

By E. W. KELLER.

IN all my travels and motoring trips in the West, including the Rocky Mountains, I have never found another place where there are so many shady drives, beautiful scenery, parks, historical landmarks and other spots of interest within so small a radius as there are to be found in and around the city of St. Paul, Minn. To reach all of these places there is one of the finest street car systems in the world and sight-seeing autos by the dozens, but there is only one way to really enjoy the sights, that is, on a motorcycle. Any one contemplating a vacation trip will learn of one of nature's beauty spots by addressing the secretary of the St. Paul Motorcycle Club.

Although very hilly, the roads are excellent, and it is an every-Sunday morning experience to see motorists gather at Rice Park in front of the new postoffice and start on one of the many enjoyable trips which St. Paul offers. For the tourist who wishes to see the most in the least time, the following route is suggested by the writer:

Taking the East Seventh street course over the east side, following the high bluffs of the "Father of Waters," we reach the famous Indian mounds. These were used in the early days as signal stations by the many tribes of redskins who made life uncertain for the early settlers of the Northwest, but are now among the many attractions of the public park in which they are located. One may get a view of the green bluffs of the Mississippi River for miles from any point in the park.

Within a distance of one mile after descending the steep bluffs by way of a zig-zag, roundabout road, we reach the great Minnesota Fish Hatcheries, where fish are raised and shipped for stocking thousands of lakes throughout the State. You can spend hours here, studying the many species; but glancing back at the picturesque road just descended, you begin to wonder if your motor is equal to the climb back to the park. It is this climb that decides the fate of your engine in the Minnesota hills.

Back on the bluffs again, through the busy city and via the Sixth street hill, passing the new $3,000,000 cathedral now under way of construction, we reach Summit avenue, the fashionable residential district of the city. Following this over winding streets around the crest of the bluffs until we reach Lookout Park, a point from which a bird's-eye view of the Saintly City can be had, in the distant foreground can be seen the "High Bridge," the longest of its height in the world. Back on the avenue, which has now broadened into a double drive with its continuous park between, we again reach the banks of the Mississippi, and follow the "Shady Drive" down stream, soon coming in sight of the "Fort Snelling Bridge" spanning the Mississippi at the junction of the Minnesota River. Crossing the bridge, we come to an old landmark, the historic old "Round Tower" of Fort Snelling.

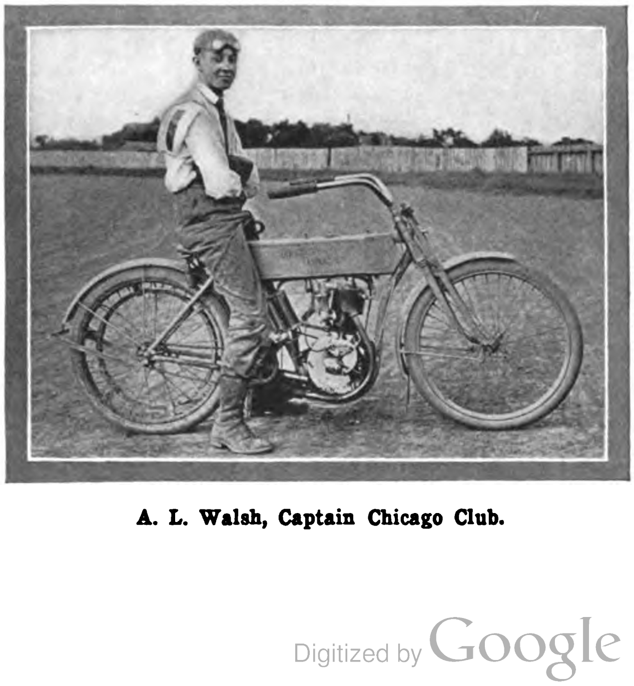
Situated on a point of land between the two rivers, with high, steep bluffs to protect it on both sides, and with a broad open stretch which meant sure death to hostile invaders from the other direction, it is no wonder the red-skins lost heart when they met the pale-faces in this stronghold. A spin through the United States Fort grounds brings us up to Longfellow Park and Minnehaha Falls.

Passing the old Soldiers' Home, overlooking these falls, we ride along River Front Drive. Passing through a portion of Minneapolis, we reach University avenue, a delight to every motorist, for it is a ten mile macadamized road connecting the "twin cities"—but we are not going home just now.

Taking the cross street through the University of Minnesota grounds, and so on to Como Park, we come to a spot that the visitor never forgets. It would take a volume to describe all the beauties of this park. A view of simply the entrance and one of the lily ponds will convince you of that.

A whirl through the many shady drives, around the Lagoon, and then we are home-bound by way of Como avenue. During this entire trip there has been but few places from which the magnificent dome of the Minnesota State Capitol has not been visible. Passing this beautiful structure, we soon reach our starting point, having made a circuit of some thirty-odd miles, with something of unusual interest to see at every turn of the road. Put the trip on your vacation list, and the St. Paul Motorcycle Club will guarantee you "something doing" every minute of your stay in these parts. It is a little tour worth going many miles to make.

WILLIAM WALSH, whose photo appears herewith, is the captain of the Chicago Club and claims the private owner championship for that city for 1909. Walsh rides a Harley-Davidson, upon which he has covered 7,500 miles, without any trouble other than two punctures. He entered fifteen races last year and finished first in most of them. Among the prizes he has won is the Curtiss Trophy, given by Glenn Curtiss, the famous aviator.



A. L. Walsh, Captain Chicago Club.

* *

THE Riverside (Cal.) club members to the number of twenty recently enjoyed a moonlight run of approximately 30 miles, and the night air was not so keen but that the ride was taken in comfort. A stop was made once on the route and an appetizing warm supper ordered.

* *

THE Chicago Club, the members of which gave a luncheon to those who attended the special F. A. M. meeting in Chicago February 10, will give a smoker to club members on Saturday, the 19th, in its headquarters, at the corner of 33d street, Jackson Boulevard and Prairie Avenue.

TIPS AND TOPICS

By The Veteran.

IT does not do to jump at conclusions as to the cause of misfiring. I heard of a case of a hasty deduction and its result which will serve as a "horrible example." A rider attributed a series of misfires to the battery voltage running low, and therefore connected up another in series, with the result that he spoiled his coil, owing to his passing too strong a current through it. Misfiring is often traceable to the carbureter. A twin cylinder's missing fire persistently is due either to faulty mixture—in all probability too rich—or because there is not enough gas for the two cylinders. The first cylinder (generally the forward one) undoubtedly gets the best chance to draw in a charge, although this does not always happen, as sometimes the first cylinder sucks a charge up the inlet pipe and sets the mixture in motion, and the second cylinder gets the advantage of it. This depends on the nature of the fault and also upon the type of inlet pipe. If the mixture is too rich it will usually cause misfiring in both cylinders, but if there is a compression cock fitted to the cylinder heads, it will be found that on opening these, the firing of each cylinder is regular, because by the admission of air through these petcocks the charges are diluted to just about the correct mixture. If, on the other hand, the mixture is too weak, the opening of the compression taps will in all probability stop the firing altogether. When riding on the road, however, it is impossible to open the petcocks; at any rate, I should not care to try it, but exactly the same experiment can be made as with the opening of the petcocks. This is done by very slightly raising the exhaust valve lifter.

⁂

AFTER long and continued service, horseshoe magnets lose much of their original power and require remagnetizing. I say that long usage brings about this condition, some machines being just as good sparkers in their third year as they were when new, and I should say that about four or five years of use will develop trouble of this character. Some people have an idea that any local garage or electrical man can tackle a remagnetizing job with a bit of wire and a battery. It is best to get away from this conception at once, or probably the magnets, when returned by the local Edison, will be far worse than they were before. Be certain, first of all, that the magnets are weak, as your trouble may be due to worn-out contacts or perhaps some invisible leak in the current, caused by water or dirt inside the magneto. The best plan, when remagnetizing is necessary, is to send the whole caboodle back to the manufacturers for a general overhaul, as they have their own product and its idiosyncrasies down to a science. The horseshoe shaped electro-magnet is magnetized by means of a dynamo current, so adjusted that the strong "field of force" is located between a pair of adjustable soft iron poles or blocks, on which the magnet is set in such a way that its polarity is right, because if it were placed otherwise, more would be taken out of the magnet than was put into it.

⁂

I RECENTLY had occasion to thoroughly examine the power plant of an old Franklin air-cooled car, and was particularly struck with the excellent design of the auxiliary exhaust valves. They must give a very complete exhaust of the fired gases in the cylinder and may partly account for the wonderful cooling of the Franklin engine. Certainly it would look as though this extra exhaust valve could be included in the design of a motorcycle engine and increase its efficiency. Of course, this would mean an additional valve spring, seating, tappet, etc., although the same camshaft could doubtless be used, making a wide double cam. If this valve were placed fairly low down in the stroke, there would be little or no leakage of compression. I have seen the idea used roughly in French racing motorcycle engines. I say the "idea," not the valve, as the cylinder was merely drilled with holes at the bottom of the stroke, to give a free exhaust. Naturally, the practice had great drawbacks, as the lubricant went everywhere through these holes and the riders had to literally flood their machines with oil; but there is absolutely no reason why any excessive amount of oil should find its way out of an auxiliary exhaust valve such as I mention. It is generally conceded that the present type of valve requires much improvement because the burnt gases are not completely scavenged from the cylinder.

⁂

HERE is the best "dope" for painting the exhaust pipe and muffler. Use boiled linseed oil, 1/10 pound; japan varnish, 1/10 pound; spirits of turpentine, 1/5 pound; lampblack, ¾ ounce; pure powdered graphite, ¾ ounce, and powdered oxide of manganese, 3/16 ounce. This mixture is not costly, and if three or four machines are done at once, the expense is only a matter of a few cents each. To make the compound, first mix well the linseed oil and the japan varnish, then add in the order named, stirring all the time, the lampblack, graphite and powdered manganese. The solids should be added slowly while the stirring is busily maintained. As the mixture thickens, thin it down with the turpentine, until the proper quantity has been used. The paint should be applied at once, for it dries rapidly. Every time the brush is dipped the mixture should be carefully stirred. It is best to paint the muffler and exhaust pipe while they are hot, first of all, of course, cleaning them thoroughly. This type of finish is used on many of the leading automobiles and looks extremely smart, presenting a fine, even surface which wears for a long time. Try it during the winter overhaul.

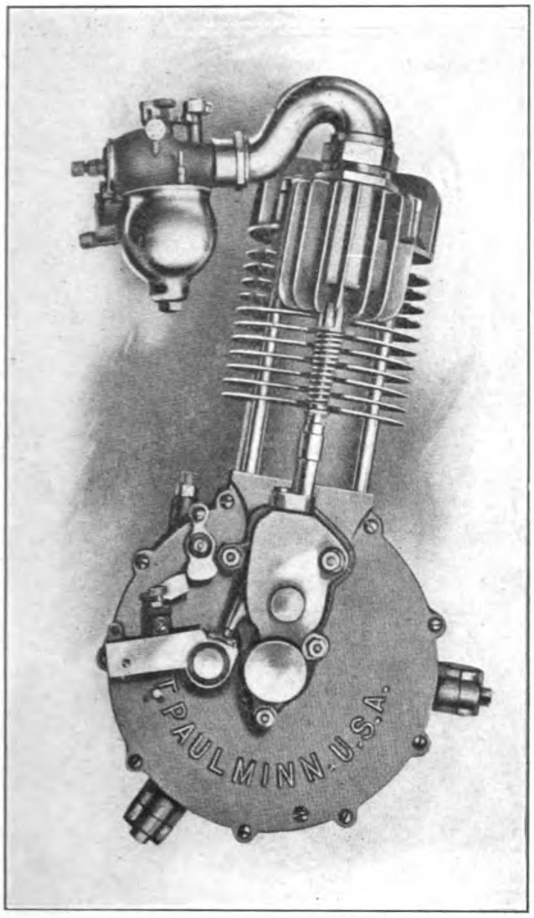
⁂

SOME spring lock washers seem to be made merely to annoy; they are excellent in theory, but in practice they have the habit of losing their spring, becoming "dead," and then snapping. A spring washer, in an important spot on the machine, a "joggly" muffler clip, broke the other day and the muffler soon started an irritating rattle. The tool kit revealed no spare and I was puzzled until I remembered an old-time tip. So I formed a small loop of twine with the end wrapped over the loop, making what sailors call grommet. Then the nut was screwed home on top of this. She held and has not burned through yet, although that clip gets pretty hot at times. I am always looking for repairs by the roadside, and admire a rider's plucky homecoming with an old "crock" patched up in some extraordinary way. I have seen wooden "stops" made for broken springs in the spring fork, barb wire for high tension cables and hairpins for automatic inlet springs. Perhaps I shall live to see some stranded genius make a spark plug out of a carrot—who knows?

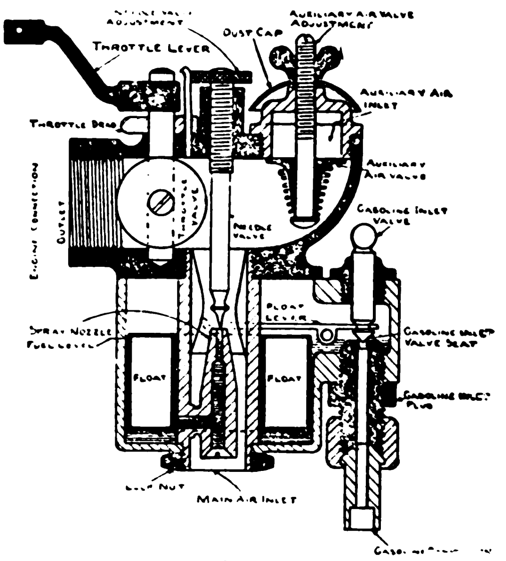
⁂

A RIDER who had a machine with adjustable valve tappets for taking up the wear on the valve and tappet, when recently running the machine on the stand, found that he could obtain far greater silence by reducing the space between the valve and tappet. But when he got the machine upon the road he discovered that he had greatly decreased his power, so that he had to dismount and put the tappet adjustment back where it originally was. It stands to reason that there ought to be some clearance between the tappet and the valve, for if the adjustment is too fine the valve will naturally open earlier and close later than when the clearance

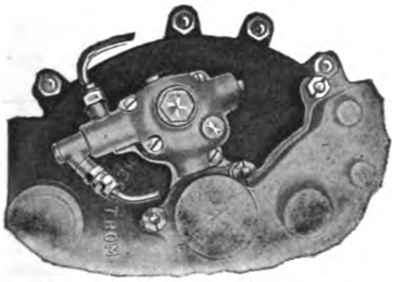
A FEW 1910 DESIGNS OF ENGINES, ETC.


T. PAUL MINN. U.S.A.

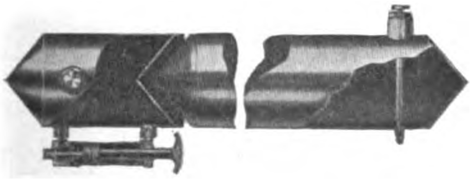
Wagner Engine.


Adjustment
Throttle Lever
Dust Cap
Auxiliary Air Valve Adjustment
Auxiliary Air Inlet
Throttle Drag
Auxiliary Air Valve
Engine Connection
Outlet
Throttle Valve
Needle Valve
Gasoline Inlet Valve
Float Lever
Spray Nozzle
Fuel Level
Gasoline Inlet Valve Seat
Float
Float
Gasoline Inlet Plug
Nut
Main Air Inlet

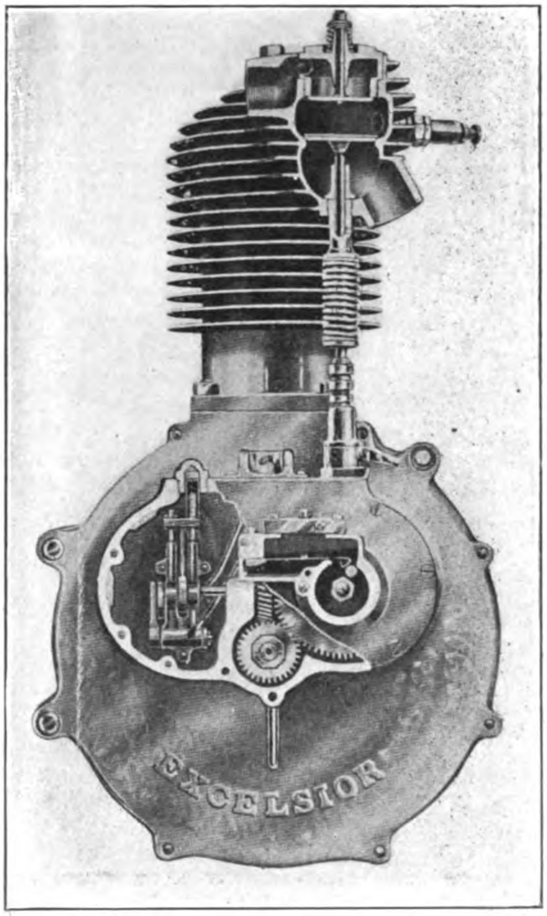
Yale Carbureter.



Indian Oiler.

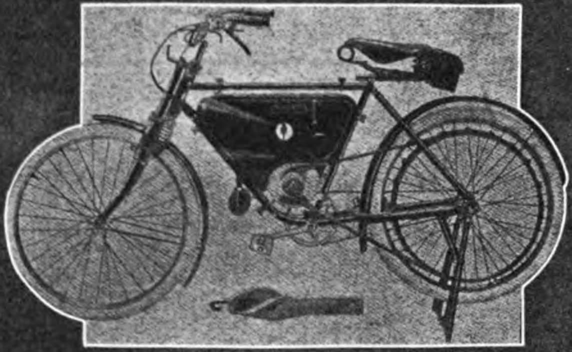


Royal Pioneer Tank.

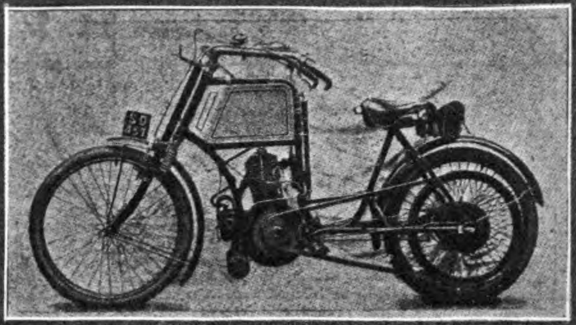


Excelsior Engine.

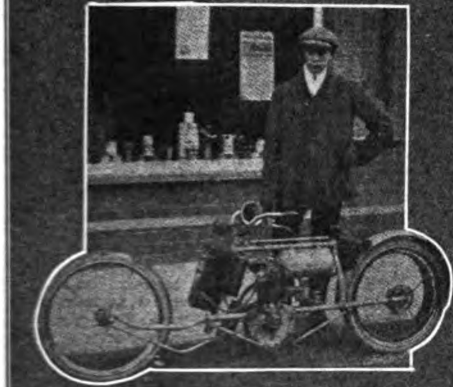
FOREIGN NOVELTIES



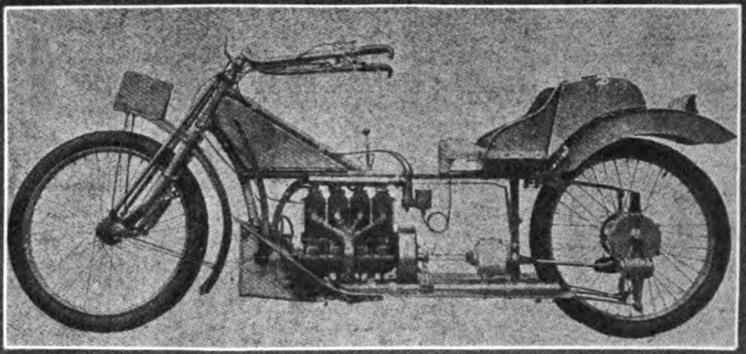
The 1910 Motosacoche
V-Belt Drive.



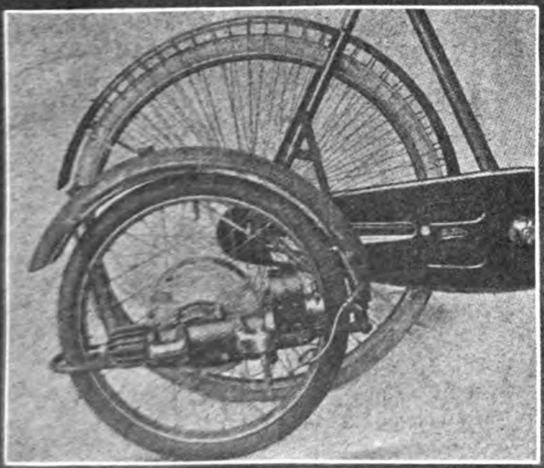
A Patented Frame, Designed to Meet the Riding Requirements of Both Sexes.



A Novel Machine
Minus Forks.

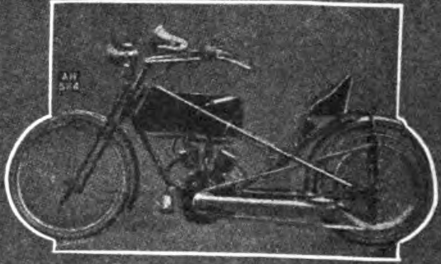


An English 4-Cylinder
With Auto Seat.

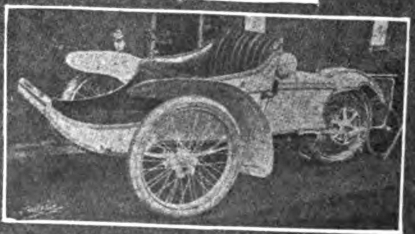


The Wall Auto Wheel.

An Ingenious Self-contained Motor for Attaching to a Bicycle.



Home-Made Frame.



A Racing Fore Car.

is greater. The tappet should be so set that the exhaust valve opens and the inlet valve shuts in exactly the proper place in the stroke. By this means regular running will be obtained at slow speeds, and the carbureter will cause less trouble. As for the clearance between the valve and tappet, the best thing is to make a little gauge to be slipped on a key ring, and always regulate the adjustment by this.

* * *

ANOTHER carbureter mystery has just come to my attention. The machine in question was new in June, and after a fairly long period of satisfactory running it started behaving in a most erratic manner. It would go perfectly on some days, then suddenly develop bad misfiring and eventually come to a stop. Tickling the float did no good at all, as it appeared that there was no gasoline in the carbureter. The rider found that the only way to force the gasoline through the carbureter was to blow through the vent on the tank filler. He took down the carbureter several times, but the old trouble returned, and in the end a new gasoline feed pipe was fitted, but even this brought about no improvement. The gasoline tap appeared to be all right, but when it was eventually detached from the tank it was found that it had been sweated in, the solder having run through parts over the hole, leaving barely room for the gasoline, the slightest piece of dirt stopping it up. Enlarging the hole and carefully sweating the tap back into its place ended the trouble.

* * *

I HEARD a good touring yarn the other day from an old-timer. It appears that he was riding out in the West and suddenly came across a fair-sized wash-out. It seemed too wide to rush, and therefore he decided to push the machine through. Taking off his boots and socks, he put one sock inside a boot and tried to heave it across. But he miscalculated the distance, and the boot went into the water. Not content with this, he argued with a companion that it was an easy throw and tried again with the other boot and sock, with the same result. Then, in pushing his motorcycle through the wash-out, which was deep, he stumbled, fell and completed the soaking. He finally rescued the boots, and lighted a fire to dry himself, while his companion on the other side went to look for some crossing, as the wash-out had been caused by the rise of a stream. Imagine the damp one's chagrin when his companion found a small bridge about a hundred yards away. And it took two hours to get that motorcycle running again after its bath.

* * *

REVENONS à nos moutons, as De Rosier would say. I have noticed that many riders, yea, even expert repairers, are prone to replace any old flattened gasket when reassembling an engine, trusting to luck that there will be no leakage of compression. A new gasket does not cost much, and when the plug cap or petcock is screwed home there is little chance of any leakage. On the other hand, a flattened gasket has very little vertical "give" in it and is apt to become slightly twisted if it is placed carelessly in an exposed condition. Undoubtedly new gaskets are the best finish to a general overhaul. Petcocks are also great sinners in causing compression losses, and they should occasionally be taken to pieces and very carefully reground with fine crocus or emery powder and a little machine oil, and then thoroughly cleaned with gasoline before being reassembled.

* * *

IT has long been recognized by many designers that some patterns of exhaust valves are likely to cause pre-ignition. Some of the old designs, with a high protruding slotted head for valve grinding, were great sinners in this respect. This slotted extension would project some distance into the valve-chamber above the upper surface of the valve, and there is a decided tendency for this piece of metal to get excessively hot at times and cause pre-ignition. The best type of design has the boss supporting the slot as short as possible, and this should be finished with good sized fillets.

ANYBODY who has used accumulators instead of dry batteries remembers the corrosion trouble. The fault of an accumulator when used on a motorcycle is that the jolting which it gets spills the acid through the vent holes and, even if this does not occur, the terminals are very apt to become corroded. Of course, accumulators do not suffer so much from vibration when they are used in an automobile, because they are insulated from road shock by the car springs, while the use of vaseline will prevent corrosion of the terminals. Therefore accumulators are often used on motorcycles fitted with dual ignition. To a lesser degree we get corrosion from dry batteries, forming in the bottom of the battery box. This may be prevented by covering the battery box with a layer of bicarbonate of soda. This costs less than a cent, and, as any corrosion will in time eat its way through and spoil a battery box, the tip may save a dollar or so in the end.

* * *

WHEN grinding in valves, put a wad of cotton waste into the space just at the mouth of the valve port so as to prevent any of the grinding material from falling into the cylinder. This would have an abrasive effect upon the cylinder walls and piston and serious damage might be done However, in this connection I have a little parable to preach. A friend of mine forgot all about the waste, leaving it in and discovering the mistake just in time, as the machine was so hard to start. I cannot quite guess what would have happened had he overlooked the obstruction. It is a question whether the waste would have let enough gas through to fire the engine, or, which is far more probable, whether the engine would have sucked in the waste, to be burnt by the exploded charge and form a lovely carbon deposit on the cylinder head. Remember the tip, but don't forget the parable.

THESE two boys are Fred Huyck and Charlie Jenkins, popularly known as the "Chicago Twins." They are mounted on a double Indian. Huyck and Jenkins have come by their new characterization because of the fact that the last-named has achieved distinction on the Hawthorne track on account of his marked success in seconding the wonderful work of the peerless Huyck.

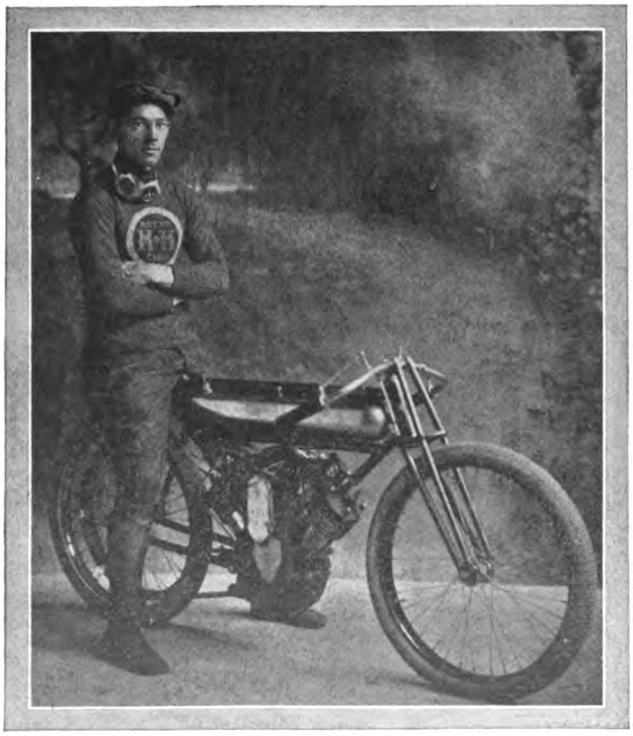
THE MOTORCYCLE FOR OLDER MEN

By Edwin Smith

PICTURES of riders, as they appear regularly in MOTORCYCLE ILLUSTRATED and elsewhere, always interest me. whether they be of racing men, club men, or individual riders; but I can scan these pictures in vain for the faces of older men. To be sure, these men are not apt to race, nor ought we, perhaps, to look for them in the clubs as much as for the younger men. But I do not find them on the road; for when I hear a motorcycle and turn to look at it, as I always do, I almost without exception find the rider to be a "youngster." I know that these older men, these "old timers," ride to some extent. Perhaps they may be found in greater numbers in other parts of the country. But in my opinion they do not ride anywhere, with us, in such numbers as we have a right to expect, nor as they would if they knew what the motorcycle had to offer them. It is to these mature men, these conservative men, that I address myself; not to the man who loves speed for its own sake; not to him who regards the wheel as a business proposition, though he is well worth consideration; but to the man who appreciates agreeable exercises, and who loves the call of the out-door life and all the varied attractions of nature. In doing this I have ventured to make use of my own personal experiences as illustrating the growth of one of this type into an appreciative and even enthusiastic motorcyclist.

It is not many years since all the world and his grandfather went awheel. In the palmy days of the bicycle, we all went abroad and discovered the land. We pushed and we toiled and we did sweat. But how we enjoyed ourselves, on those afternoon runs into the country; or perhaps when we slipped away for two or three days, along the broad highway or the shady lane, putting up at night, perchance, at some quaint country inn, listening, it might be, to the village gossip, and attracting rare attention to our strange, wandering selves! What refreshment we drew from some pure spring on the hillside! What rest on some grassy bank! What appetites were ours! It is true, we returned weary and travel-stained; often with sunburned faces and noses which betrayed us for days; but we had had something which had done us good; which stayed with us, not only in the health it brought, but in the memory of pleasant experiences which it stored away, to be drawn on often in quiet moments of reflection.

WILLIAM BREWSTER, whose picture is shown below, rode on an M. M. in races held at Princeton, Ill., last fall and won five out of six events. On the Hawthorne mile track in Chicago, Brewster defeated Fred Huyck, Indian champion, in a five mile race by two laps. He also made a mile on the same track in a minute and one second. Brewster is an amateur rider, and certainly has good prospects, as he is a daring and skillful rider.



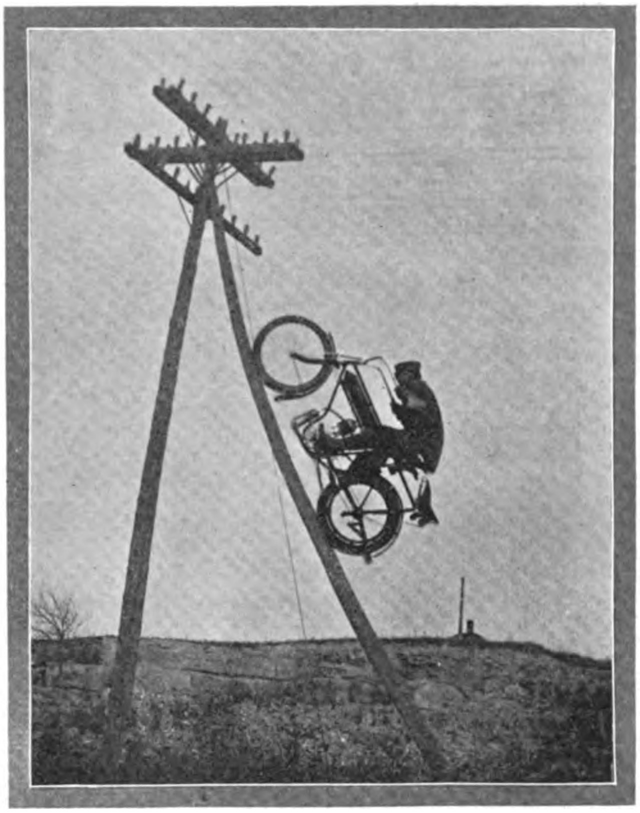
I think I appreciated the pleasures of the bicycle as much as any one could, and I often found myself saying to my companions: "'May I never see the day when I shall be unable to ride the wheel"; and they replied in like manner. And when they all fell aside, I did not. I still managed to get away for my trips of a few days into New Jersey; round about Long Island; into the Berkshires; and elsewhere; and there was never a one that I did not thoroughly enjoy, and which I do not now enjoy in memory.

There are, however, certain disadvantages attending the use of the bicycle. You must work to get what it gives you. It is not altogether a joy to toil up a hill a mile long on a hot day in August. Your pleasure is often obtained by much sweat of your brow, and if when your collar wilts dejection seizes you, you will often suffer much. What you get back will be worth the effort, if you can make up your mind to that effort; but most of us are lazy folk, and the view that will open to us from the top of yonder hill does not impress us so forcibly as the view we are just then getting of the steep ascent that leads to it. And when the gray begins to creep into a man's hair, effort becomes harder—just when it becomes most necessary. If our occupation be sedentary, we too often grow stout and indolent, and too often the neglected and overtaxed human machinery refuses to work any longer, and stops long before the time when a man may be said to be really old.

When the motorcycle appeared I was impressed by its possibilities. Here, thought I, is a wheel that will put me back to twenty-five again; that will level the hills and temper the winds; that will give me all and more of the pleasures I enjoy so much, together with the beneficial exercise, without the excessive toil, the grind and the grime of the bicycle. It was, however, some time before I bought one; for I believed they were then unreliable, and simply boneshakers. At length I ventured. I found my impressions justified. A new horizon of pleasure was certainly disclosed to me; but this machine, with its rigid forks, its small tires and limited and insufficiently sprung saddle, surely offered a rough approach to it. And it was without doubt unreliable. Like the wind which "bloweth where it listeth," it motored when it would. Why it would move at times and entirely refuse to do so at others, neither I nor the agent from whom I purchased it—a very good fellow and an experienced mechanic—could ever tell. Many a time did I pedal it up and down the street, in vain endeavor. For advertising purposes, I might as well have had a sign on my back: "Do not buy a motorcycle. If you do, this is one of the things that will happen to you." Nevertheless, I had some very satisfactory rides on it. Like the little boy with the curl, "when it was good it was very good, but when it was bad it was horrid." I always got back home with it, though once or twice I ventured close to spending the night with it in the fields. But at length, tired of its vagaries, I sold it to one who wanted it more than I did, and returned to my good old bicycle, and pushed through the Berkshires and, on two of the hottest of August days, rode one hundred and sixty miles over the level roads of New Jersey, and longed for a motorcycle every bit of the way. About a year later a motorcycling friend persuaded me to go with him on a two days' trip, and procured a wheel for me from an agent on the specious plea that it might lead to a sale later on. That ride was a revelation of improvement to me, and an unforgettable pleasure; even though it was November, with a "nipping and eager air." It was, however, another year before I ventured again to become the owner of a motorcycle. I now found myself the possessor of an efficient and reliable mount; and as I now returned from one and another charming ride, I was confirmed in the belief that, as a means of health-giving pleasure, the little vehicle was unsurpassed.

Many have turned, of these late years, to the automobile, and its extended use for touring indicates that the love of the outdoor life is common to large numbers. Perhaps our social conditions, our love of democratic equality, have led to a certain struggle for the more luxurious and costly vehicle, as indicating the achievement of a kind of social prestige. But where there are ten men whose income justifies their supporting an automobile, there are a hundred who can afford a motorcycle. It is the "poor man's automobile." It will do nearly all that the big vehicle will do, except carry a crowd, and in many ways will do it better. It will, I believe, give you a better return in health, in exhilaration and the real joy of life. I think it has not hitherto been appreciated, with us, so much perhaps as abroad, but has been regarded by most mature and conservative men as a frivolous sort of vehicle, a noisy, jolting, unreliable, and even dangerous, speed machine, fit only for the young and daring. Whatever justification for this attitude may have existed in the past, it is certainly no longer warranted. The motorcycle is not now necessarily noisy. It will not jolt you any more than most other forms of popular conveyance, nor more than you ought to be jolted for your good health's sake. With the cushioned forks, the large tires, the generous and well-sprung saddle of these days, shaking is a negligible thing. It is not dangerous. You may make it so, if you belong to the ancient order of foolish fellows, but it is a machine most easily handled and controlled, and the makers are seeing to it that it shall be strong enough to stand the uses to which it will be put. It is a machine and needs a bit of what we call "gumption" on the part of the rider; and you can be reasonably sure that you have it; although there are men who would have trouble with a wheelbarrow. It is not a vehicle for the young only. It is too good for that. Any sturdy man in ordinary health, of any age, can ride it. Should you yield to temptation, as you ought to, and become a rider, and read MOTORCYCLE ILLUSTRATED, as you probably will, you need not be alarmed by the hints and suggestions you will find there about valves and springs, tappet rods and gudgeon pins, and the many other awful mysteries attending the operation of a motor wheel. Read them and remember them, if you can, for they are valuable. But for the most part they concern the expert, the speed merchant, the man who likes to fuss over his machine, or him who has what a good book of motorcycling calls "tinkeritis."

No. It is not the thought and worry of such things as these that the motorcycle will mean to you. Look rather on this picture: It will give you fifty-eight, eighty, a hundred miles, and more if you choose, out into the country in a few short hours. It will set the blood dancing in your veins; brush the cobwebs from your brain; and bring you home, not tired, but with a sense of agreeable exertion, and a feeling that I cannot better describe than to call it good. There are sleepy little villages in secluded valleys and on the lovely hills, vistas of trees embowered streams and visions of the mountains that will lift you up into a glorified sense of the goodliness of this old earth of ours. These you ought to see, and I advise you to see them while motorcycling.



AN EXTRAORDINARY ACCOMPLISHMENT.

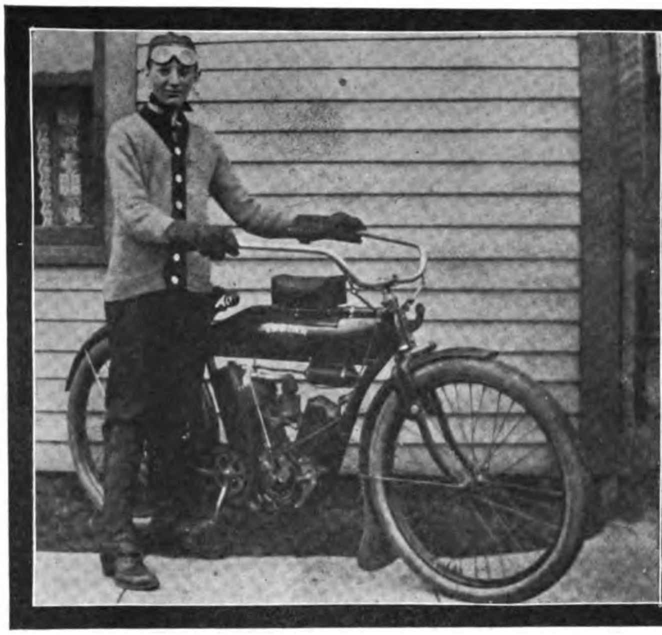
J. M. DE LEZENE, the Reliance representative in Kansas and Colorado, sends this picture from his home in Stockton, Kan. We fully agree with him that the stunt which it illustrates will make the "old boys" sit up and take notice. He says that while the performance looks to be a very difficult one, it is comparatively easy "when you know how." Regarding general conditions in his part of the country, De Lezene writes:

"Motorcycling is coming to the front in the West. Everyone is just crazy to own a machine. Every town that I have been in has a few enthusiasts and a few wheels. There will be a great harvest for manufacturers and agents during 1910, especially for those who handle machines equipped with two-speed gears and free engine attachments."

"GAS, GASOLINE, AND OIL ENGINES."

WE have received from the Norman M. Henley Publishing Company, 132 Nassau street, this city, a copy of the eigtheenth edition of "Gas, Gasoline, and Oil Engines," by Gardiner D. Hiscox. The volume, which is a very valuable one, fully illustrated with engravings and diagrams, is sold for $2.50.

The book treats on the theory of gas, gasoline, and oil engines as designed and manufactured in the United States. Explosive motors for stationary, marine and vehicle power are fully treated, and illustrations of their parts and tabulated sizes, and hints on their care and running are included. Electric ignition by induction coil and jump spark is fully explained and illustrated, including valuable information on testing for economy and power and on the erection of power plants. The special information on producer and suction gases cannot fail to prove of value to all interested in the generation of producer gas and its utilization in gas engines. The rules and regulations of the Board of Fire Underwriters in regard to the installation and management of gasoline motors are given in full, with suggestions for the safe installation of explosive motor power.



Walter Simon, of Indianapolis, Ind.

Vinton Pierce, of Washington, D. C.

SOME time ago a youth named Otto Kraushaar, who hails from Indiana, issued a challenge to any boy of his age to ride 100 miles or so. Since that time we have received answers from Vinton Pierce, thirteen years old, 1325 Massachusetts avenue, Washington, D. C., and Walter Simon, 2317 Prospect street, Indianapolis, Ind. Simon is fourteen years of age and rides a 2¾-h. stock Indian. Pierce has been riding for four years and has already had four machines, on one of which, a little N. S. U. twin, he claims to have made a mile in 58 seconds. Both Simon and Pierce are satisfied that they can negotiate 100 miles as fast or faster than anyone else of their ages.

FORMULAS FOR ASCERTAINING THE HORSEPOWER OF GASOLINE ENGINES.

A LITTLE technique now and then is good for the best of—motorcycle riders. However, in view of the fact that we receive so many inquiries regarding horsepower, we feel quite justified in submitting briefly an expert's analysis of the various approximate formulas which have been adopted or proposed by a number of societies and individuals for the horsepower of gasoline engines. In these formulas D = diameter of cylinder, N = number of cylinders, S = length of stroke, n = number of revolutions per minute.

The French Automobile Club's formula is as follows: $H.P. = 0.07\ D^2N$, when the diameter is given in centimeters; $H.P. = 0.45\ D^2N$, when the diameter is given in inches. In this formula the mean pressure had been assumed to be 5.3 kilograms per square centimeter (75 pounds per square inch), and the piston speed 5 meters (16 feet 5 inches) per second.

The Royal Automobile Club's (British) formula is: $H.P. = 0.0625\ D^2N$, when the diameter is in centimeters; $H.P. = 0.405\ D^2N$, when the diameter is given in inches.

Mr. Arnon's formula is: $H.P. = 0.0061\ D^3N$, when the diameter is in centimeters; $H.P. = 0.1\ D^6N$, when the diameter is given in inches.

Mr. Faroux's formula is: $H.P. = 0.0074\ D^{2.4}\ S^{0.6}$, when the diameter is in centimeters; $H.P. = 0.121\ D^{2.4}\ S^{0.6}$, when the diameter is in inches.

Another French formula is as follows: $H.P. = 0.02562\ D^{2.4}\ N$, when the diameter is in centimeters; $H.P. = 0.24\ D^{2.4}\ N$, when the diameter is given in inches.

Mr. T. Thornycroft's formula is: $H.P. = \frac{D^2\ S^{0.75}\ N}{35{,}000}$, when the diameter is given in centimeters.

Prof. H. L. Callender's formula is: $H.P. = 0.0875D\ (D - 2.5)\ N$, when the diameter is given in centimeters; $H.P. = 0.565D\ (D - 1)\ N$, when the diameter is given in inches. In this latter formula the mean pressure is assumed to vary in the same proportion as $1 - \frac{2.5}{D}$ if the diameter is given in centimeters, and $1 - \frac{1}{D}$ if the diameter is given in inches.

The Royal Automobile Club's (Swedish) formula is: $H.P. = \frac{D^2SnN}{250{,}000}$, when the diameter is given in centimeters; $H.P. = \frac{D^2SnN}{15{,}240}$, when the diameter is given in inches.

In this connection the formula of the Association of Licensed Automobile Manufacturers should be included: $H.P. = \frac{D^2N}{2.5}$, when the diameter is given in inches, $H.P. = 0.062\ D^2N$, when the diameter is given in centimeters.

Some of the formulas proposed, with fractional exponents, are more cumbersome to use than would be the exact horsepower formula, and are of very doubtful value for their purpose. It is difficult to understand why one should be given an approximate formula at all, unless the form of that formula should be such that it greatly facilitates computations, as compared with the exact formula. In this respect the A. L. A. M. formula is one of the best.

THE R. E. Hardy Company announce the removal of their Sta-Rite spark plug business from Brooklyn to Chicago, the big jump being taken because of the greatly increased Western business of this concern. Their new address, 1735 Michigan avenue, is in the center of Chicago's motor row. Here they will occupy the fourth and sky-light top floor of a new $300,000 building fitted with passenger and automobile elevator service.

OPERATION OF THE SPARK COIL.

THE size and strength of the spark that a spark coil can deliver depends upon the number of turns of wire in the coil, their arrangement, the amount of iron used in the core of the coil, its quality and arrangement and the size of the current passed through the coil. The magnitude of the current in the coil depends upon the length and size of the wire, the voltage or "electromotive force" of the battery and the internal resistance of the battery cells.

When the current is first turned on it meets with two kinds of resistance, one the ordinary "ohmic" resistance which all objects offer to the passages of an electric current. The energy of the battery which is consumed in overcoming this resistance is converted into the heat in the coil, and is wasted so far as any useful purpose is concerned. The other resistance encountered by the current is that due to the building up of the magnetic field of the coil, and is known as the "counter electromotive force of self-induction." It is this magnetic field which supplies the energy for the spark when the contact points separate in the engine cylinder. This, then, is the useful part of the work done by the battery and the design and construction of the coil should be such as to reduce as much as possible the ohmic resistance, so that the only work done by the battery will be in overcoming the resistance due to building up the magnetic field.

It is necessary to understand this fact in order to see how there can be such a difference in the value of different spark coils and why some coils are much more economical in battery consumption than others.

A very close analogy of the whole operation of building up a magnetic field in the coil and discharging the energy of that field into the engine cylinder is found in the case of a man starting a car on a track, says the writer of "How to Spark a Gas or Gasoline Engine," issued by the Edison Company. In starting the car there are two kinds of resistance to be overcome, one ordinary friction and the other the inertia of the weight that is being brought up to speed. After the initial start the friction of a moving car is about the same, no matter what the speed and whether or not the speed is changed. This corresponds to the ohmic resistance of the coil and is also like it in all that work done in overcoming this frictional resistance is pure waste, and we try to keep it down as much as possible by using a smooth track, greasing the axle bearings, and by otherwise reducing friction.

Now the other resistance, the inertia resistance due to getting the body in motion, disappears as soon as we once reach the maximum speed, and that is just the same in the case of the spark coil; when we have brought the current and magnetic field up to their maximum value, the counterelectro motive force no longer opposes the flow of the current. Up to this point the parallel between the two cases is exact.

Now, however, we come to a difference. In the case of moving our machine, the object is to bring it up to speed and keep it going in order to transport the load. In the case of the spark coil our object is, once we have the magnetic field built up, to immediately destroy it in order to produce a spark in the cylinder, *i. e.*, it is just as though we wished to use our machine vehicle to crush something or to drive a spike into a post. In that case we would want the machine to hit as soon as it came up to full speed; we would not want to run with it a mile or so after speed was obtained. Now, returning to the case of our coil, the whole operation, then, is to bring our magnetic field up to full value as quickly as possible, so that the least battery power may be wasted in overcoming resistance, and then to discharge that magnetic field without delay so that our batteries may not be wasted in keeping up the current after we have built up the magnetic field.

THE LIGHTWEIGHT SITUATION.

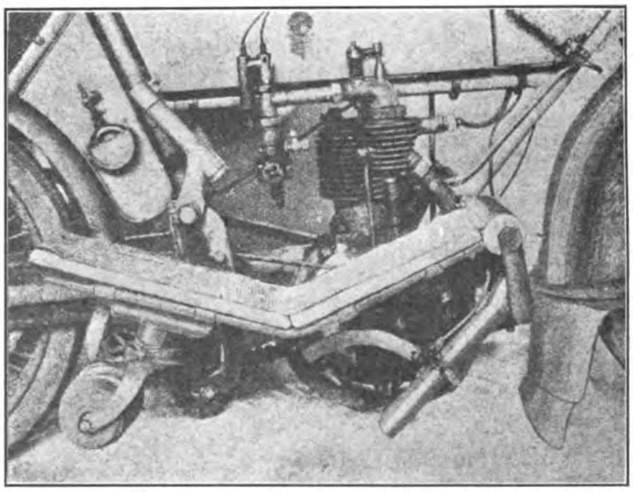
A DECIDEDLY healthy bantling, at least in the foreign trade, is the lightweight. On the other side it continues to equal the performances of the second-rate heavy roadsters in the big reliability trials, and though on these occasions it is sometimes handled by an expert of rather less than average weight, it may fairly be estimated that it deserves to rank in the second class of machines, at the very least, seeing that these trials are framed with an eye to faster and more powerful machines, and that the lightweight has generally to be rather overdriven in competition work. Its main failings at present are twofold. One is up-to-date inherent in its design and construction, viz., the prospect of transmission troubles, due to using a very small belt on very small pulleys. The other failing may be disregarded if a lightweight is driven at the proper lightweight average of about sixteen miles an hour. The springing of no machine is as yet ideal, and this is especially true of machines on which every ounce of weight has to be seriously considered. Lightweights, like other machines, are fairly adequately sprung for the pace at which they are meant to travel, but they are not suffciently well sprung to endure being forced along over rough roads. Their lighter fittings soon evince signs of such ill usage. If owners of lightweights were content to travel at a slower average speed than owners of standard tourist machines, little trouble would be experienced with the light fittings; but unfortunately the average motorcyclist imagines he is crawling unless he maintains legal limit average, and consequently many lightweights get man-handled by ruthless owners, and suffer in reputation accordingly. An Englishman recently declared that he had averaged twenty-eight miles per hour for quite a long journey on an 80-lb. machine.

* *

A UNIQUE "STAND-STILL" DEVICE.

A DEVICE designed to enable the rider to balance his machine when standing, without taking his feet from the footboards, is soon to be placed on the English market. It is so arranged that when the right footboard is depressed, the clutch is withdrawn, and the machine can remain stationary with the engine still running. By a particular adjustment of the clutch lever, it can be left so that when the footboard is down, the clutch is not quite free, but is acting as a slight brake on the engine to prevent it racing.

The device also makes a very good stand. When the rider stops, he can engage two catches, which keep the boards down and allow the rider to dismount and leave the machine upright. Handle starting is from the bottom bracket.



FEDERATION OF AMERICAN MOTORCYCLISTS

E. M. HUGHES, vice-president for the Southern District, writes to advise us that conditions are rapidly taking on a new aspect in his territory. We quote from his letter:

"The South is sparsely organized in F. A. M. matters, as you perhaps know, but we mean to work and hope for improvements that will breed a lively interest in motorcycling and clubs throughout the whole Southland. At present Louisville, Ky., cannot even lay claim to a club, but we have planned to organize one in the near future and have every reason to believe that a good-sized, healthy club affiliated with the F. A. M. will be the result. We have 100 riders in the city and should have many more, considering the splendid roads leading in all directions from the city; many of them stretching hundreds of miles through the beautiful and world famous Blue Grass section of Kentucky; roads, too, that are veritable boulevards with scenery unsurpassed.

"Another encouragement we have is the recent passage of the 'Good Roads Amendment,' which will affect the whole State and gives promise of improved highways unlimited. Indeed the 'Dark and Bloody Grounds of Kentucky' may soon become civilized. Most of the dwellers are already tame enough to 'eat out of your hand.'

"In Ashland, Ky., a bill was recently considered which required a fee of $5 a year and compelled motorcycles to carry two white lights in front and one red light behind, a horn or bell and a big number plate a la auto. A number of other objectionable impositions were inscribed in the voluminous document. We succeeded in allaying the fever in its early stages and secured sane regulations instead. The fee now exacted is $1.50. No lights, horn or bell are required and a very small license tag is supplied by the city.

"During each year a great many tour this country and they could help their fellow tourist materially if each one would write to the different publications giving a condensed account of their trips, hold-ups, etc. Good and bad stretches of road might be commented on; good and poor hotels might be named, particularly the good. In this connection the writer cannot refrain from mentioning one in particular that comes pleasantly to mind, the Imperial Hotel, Washington Court House, Ohio."

* * *

THE following have been appointed official F. A. M. referees upon the recommendation of local clubs: Charles D. Matthews, care of Union Wheel & Mfg. Co., Coxsackie, N. Y., for Troy and vicinity; W. D. Gresham, P. O. Box 99, Birmingham, Ala., for Birmingham, Ala., and vicinity; William Hellman, care of C. B. Cornwell, Washington avenue and Seventh street, St. Louis, Mo., for St. Louis and vicinity.

"I AM endeavoring to increase the membership of the F. A. M. through the efforts of the Western District, and to that end have appointed commissioners in the following States: Indiana, R. H. Sturm, 219 Massachusetts ave., Indianapolis; Illinois, C. H. Lang, 35 S. Adams street, Chicago, Ill.; Ohio, C. J. Weitzel, Fifth and Brown streets, Dayton, Ohio; Oklahoma, L. R. Boone, 125 N. Third street, Chickasha, Okla. I have also appointed the following commissioners: Chicago, Ill., R. S. Mattoon, 1551 Michigan avenue; Indianapolis, Ind., H. L. Dipple, 338 Mass. avenue; Upper Sandusky, O., D. G. Trowbridge. Mr. A. A. Barker, 714 Odd Fellows Building, Indianapolis, has been appointed to look after our legal interests in the State of Indiana.

"State commissioners must be appointed for the following States: Michigan, Wisconsin, Minnesota, Iowa, Nebraska, North and South Dakota, Kansas, Montana, Wyoming, Colorado, New Mexico and Indian Territory. We want good, live F. A. M. members in these States to act as State Commissioners, and also want as many local commissioners as we can get. Application should be made to me at 444 W. Vermont street, Indianapolis, Ind.

"It is the duty of the State commissioner to oversee in general all matters pertaining to the F. A. M., and to increase the membership, which can be brought about by appointing energetic, enthusiastic F. A. M. men as local commissioners. Respectfully yours,

"CHAS. WYATT, vice-president,
"Western District, F. A. M."

Indianapolis, Ind.

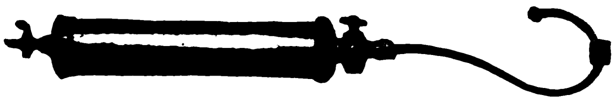
* * *

E. M. HUGHES, vice-president for the Southern District, has of late appointed the following State commissioners: C. B. Cornwell, Seventh street and Washington avenue, St. Louis, for Missouri; Robert Stubbs, of Birmingham, for Alabama; H. A. Simpson, c/o *Star Telegram*, Fort Worth, for Texas; S. C. Ragan, P. O. Box 353, Vicksburg, for Mississippi; R. O. Rubel, Jr., 947 Third avenue, Louisville, for Kentucky; L. S. Worsham, 234 High street, Macon, for Georgia; H. L. Fuller, P. O. Box 402, Greenville, for South Carolina; J. Yerkes, Jacksonville, for Florida.

* * *

IT is a good idea to join the Touring Club of America. The subscription is not costly, for the information which may be obtained regarding roads, routes, garages, and last but not least, good eating-sheds, is invaluable. The club has an excellent little periodical called *Touring*, the intrinsic value of which cannot be measured in vulgar coin. It is an entertaining and instructive journal.

THE accompanying cut shows an auxiliary gasoline tank which has been very useful in showing customers new machines without the trouble of filling the regular fuel tank. As can be seen, it is simply constructed from the tube of an old inflator and a few old connections that can be found about any cycle shop. The one shown is designed to be coupled directly to an Indian carbureter, and is hung by a piece of twine to the frame to prevent its scratching the enamel.



T. K. HASTINGS.
New York.

* * *

RIM rust is inevitable, and it is hard on the fabric of the casing. Beeswax is a good substitute for an application of japan. It combines with the rust, and makes a new compound which checks rust. First heat the rim with a blowpipe and then smear the wax over the rusted spots.

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General Editorial and Business Direction
J. Leo Sauer

L. H. Cornish - - - - - - - *Advertising*

HOW WE'RE GROWING

PRINTED COPIES LAST YEAR

Jan.	1	3,250	July	1	4,100
"	15	3,750	"	15	4,250
Feb.	1	3,750	Aug.	1	4,700
"	15	3,750	"	15	4,400
Mar.	1	3,750	Sept.	1	4,400
"	15	3,850	"	15	4,500
April	1	4,000	Oct.	1	4,600
"	15	4,000	"	15	5,100
May	1	4,100	Nov.	1	5,200
"	15	4,100	"	15	5,400
June	1	4,100	Dec.	1	5,400
"	15	4,200	"	15	5,700

1909 TOTAL: 104,350

THIS ISSUE: 6050 COPIES

ANNOUNCEMENT.

As announced in our Feb. 1 issue, the death of Francis P. Prial, President of the Motorcycle Publishing Company, occurred Monday, the 31st day of January last. The directors of the company have named the undersigned, associated with Mr. Prial for some time, as Managing Editor of Motorcycle Illustrated and business manager for the publishers. There will be absolutely no change in the editorial and business policies of the paper, which will be conducted along the broad, independent and honest lines which always characterized Mr. Prial's endeavors and which have made Motorcycle Illustrated the leading paper in its field. Mr. L. H. Cornish will be retained on the advertising end. The prosperous condition of the company's affairs will permit of a number of improvements in every department of the paper, certain to increase its already large circulation and give its advertisers still better returns.

J. Leo Sauer,
Managing Editor.

LIFE LIVES.

O tell us not!—that to the "Great Unknown,"
That valiant will and gentle spirit's fled!
Say not:—"The Master's gone! the Leader's dead!"
For that of which Life is,—is never flown.
Throughout all Time and Space, Good owns its own;
In vain, through tear mists, toward the sunset red,
We seek the dauntless way he surely led;
For he did pass in full Day, to his known
Realms of Life, Love and Truth,—Kingdoms that are.
Ah!—Poet-Mystic!—Wizard of the mart,—
Who delved amid the throng, but lived afar,
On high, and true:—no circumstance can part
Life from its worthy deeds! Thy fair Day-Star
Shines on! We feel the throbbing of thy heart!

Arthur Allen Dean.

Danielson, Conn.

⁂

FOR DELEGATE F. A. M. CONVENTIONS.

ELSEWHERE in this issue we publish in full the new constitution of the F. A. M. It takes up much valuable space, but it is our opinion that every one of our readers, whether a member or no, should familiarize himself with the rules of government of the national organization of motorcyclists. The new document, which becomes effective ten days previous to the next national convention, or Assembly, as it will now be called, was adopted at a special meeting in Chicago on Thursday, the 10th inst. President Willis presided, and C. F. Ball, secretary of the Western District, served in a similar capacity for this meeting. The attendance was not large, but nevertheless quite representative. However, an excellent committee had already carefully gone over the constitution and by-laws in their entirety, and there was comparatively little for last week's meeting to do.

There is one important exception. The new constitution does not provide for a delegate system insofar as the National Assembly is concerned. We believe that the time is ripe for introducing this plan. It may be argued that the F. A. M. is as yet too small and that it is very poorly supported in certain districts. To a certain extent this is undoubtedly true, although we do do not see how matters can be helped any by continuing to follow out the present plan of procedure. We so argued at the special meeting at Chicago, but did not push the matter simply because the attendance at the meeting was not large enough to justify such radical action, even had those who were present desired it. But in order to bring the matter to a head, the writer introduced a resolution directing the committee which prepared the constitution and by-laws to draft an amendment to the document, providing for a delegate convention or assembly. This seemed to be the unanimous sense of the meeting, and the resolution was adopted. Under its provisions it will be the duty of the special constitution and by-laws committee to confer with a view to working out some tangible and practicable plan to do away with the desultory manner in which the convention has been held in the past, and at which those living in the cities in which the sessions were held, wielded such a preponderance of power that they always could have completely ignored the demands of those coming to the convention from other parts of the country.

However, the advantages of a delegate system are so manifest that the question need hardly be argued. The only objection, the size and strength of the F. A. M., is being rapidly disposed of. It will now behoove the special committee to get together at its earliest convenience and draft the proposed amendment. Of course, the committee's work will have to be approved by the National Assembly. It is quite probable that the 1910 convention will be the last conducted under the old system.

WITH THE CLUBS

MEMBERS of the Baltimore Club have had a long siege of bad weather, which has kept them from enjoying the healthful exercise. But, though they have not been very active in riding, interest is at the top notch, which is attested by the large gatherings at the monthly meetings, which have been very spirited on account of the discussions about a suitable track. The board track bee is still busily buzzing and, were the members more wealthy in money, it would be a reality this season, as after trying hard to raise the necessary cash, they find that the cost is a little too steep for their present financial condition.

There is no question, however, that this would be a good paying investment for some farseeing and wealthy business man, with the local club's assistance, as every track constructed in this country in the past five years has proven a profitable proposition. The tracks at Newark and Salt Lake City have had an average attendance of over 5,000 persons in the past year, while the newly constructed tracks at Los Angeles, Cal., and Springfield, Mass., almost brought back the total investment in the first few race meets. President H. A. French, who had been promoting races long before the advent of the automobile or motorcycle, tried hard last fall to arrange a race meet so as to bring the best cracks of the country to Baltimore, but his efforts were in vain, as there is an injunction restraining the use of Pimlico for any motor-propelled vehicles. and the management would not consider any sport that would interfere with the "horsey" atmosphere of the track.

The boys are still hopeful on the track question, as they have several parties interested, but if the track should not materialize, it is their idea to run meets at Hagerstown, Frederick, Easton, Cambridge, Annapolis and Elkton simply to stir up interest in the sport and allow the profits to go toward the new board track. President French, Secretary Hamburger, Treasurer Wood and Capt. W. S. Fisher are prepared to subscribe $2,000 to the fund.

HARLEM BOYS' WINTER TOUR.

ONE day this winter, with the thermometer at about 50 degrees, three members of the Harlem Club, Messrs. R. N. Gaskell, J. C. Wakely and R. T. Wennstroem, started on a four days' trip up New York State, proving to themselves that touring at this time of the year is at least quite as enjoyable as it is in the summer.

The first day's ride was up the east side of the Hudson River to Rhinebeck, where the Harlem Club boys crossed over to Kingston. Arriving there about 2 p. m., they decided to remain for the day. The next morning the way led up through the Catskill Mountains, past the city's new reservoir, as far as Pine Hill. The going was pretty bad most of the way, so it was agreed that the return trip be made from that place. After a refreshing sleep, the three riders started for home. Several accidents to Gaskell's machine delayed them, so that it was dark when they reached Newburgh. After ferrying over to Fishkill, they put up there for the night and continued home the next day. The trip comprised 392 miles and was thoroughly enjoyed by the three, who are all Indian riders. R. T. W.

Gaskell, Wakely and Wennstroem.

JERSEY CLUB PLANS ENDURANCE RUN.

THE road endurance committee of the New Jersey Motorcycle Club has planned a two days' endurance run of 350 miles for May 29 and 30, stopping at Easton over night. The course takes in some shore riding and passes four of Jersey's prominent lakes, namely, Green Pond, Budds, Greenwood and the Pompton lakes, as well as a stretch along the Delaware River from Phillipsburg to Belvidere. The captain and his two lieutenants have completed a series of scheduled Sunday runs for the season, beginning May 1 and ending Oct. 31. Any rider wishing a copy of the runs may have them by applying to the club Tuesday evenings between 8 and 10 o'clock.

BAY RIDGE RIDERS ORGANIZE.

BAY RIDGE motorcyclists foregathered some weeks ago, with the resultant formation of the Bay Ridge Club. The organization is thoroughly alive, and has already increased its membership twofold. It attended the show in a body, has plans made for runs to be held on Sundays and holidays during the summer, and expects to boom motorcycling in this section, one of the road rules calling for "closed mufflers." The officers are C. A. Buechner, president, and L. Schultheis, secretary.

NEW OFFICERS OF ST. LOUIS CLUB.

WILLIAM HELLMAN is the new president; Harry Loeser, vice-president; Charles B. Cornwell, corresponding secretary; George Schmett, financial secretary, and treasurer; John Calhoun, captain, and J. W. Williams, sergeant-at-arms, of the Southside Cycle Club of St. Louis, Mo. This club was organized in 1906 with a charter membership of about twenty-five. It now has seventy members, all enthusiastic riders of motorcycles.

CINCINNATI CLUBS MAY BE MERGED.

THERE is talk of a merger of the Queen City and Cincinnati Clubs, of which Messrs. Laile and Sparrow are respectively presidents. The impression is general in Cincinnati that the combination of the two clubs would be beneficial to everybody concerned, and a great majority of the members are in hopes that satisfactory arrangements to this end will be made.

SIZE OF WHEEL AND TIRE.

I WOULD ask the opinion of riders regarding the use of 26-inch wheels for motorcycles. I have never ridden a motorcycle with 26-inch wheels, but have had a great deal of experience with a 26-inch bicycle, both on track and road. In 1896 the Syracuse people put out a 26-inch racer and the Remingtons a 26-inch roadster. Both were failures, particularly the roadster on rough country roads. Does that which applies to a bicycle also affect a motorcycle?

I had also entertained the opinion that the 28-inch tire would give longer and better service (difference in price considered), so I wrote to one of the largest tire manufacturers in the country. The following is the question and also the reply:

> "Will a 28 x 2½ motorcycle tire give more and better service than a 26 x 2, difference in price considered? Don't you think that a 26-inch tire is more apt to be punctured, since it rests on a smaller area, and for this reason wears much faster than the 28-inch tire?
>
> The reply: "Answering your favor of the 20th inst. in regard to the advantage of the 28-inch motorcycle tire over a 26-inch tire, we do not hesitate to say that the advantage is in favor of the larger size tire, the difference in price being considered. The principal reason is, as you state in your letter, that the 26-inch tire is more apt to be punctured, for in the same distance it revolves a larger number of times, that causing the tire to be subjected to more wear than the larger size. The difference in riding qualities should be taken into consideration. That is noticeably marked in automobile tires, the tendency being to work toward a larger size tire every year. We are now making a 42-inch automobile tire, whereas a few years ago 32-inches was considered a large size. The writer has personally tried both sizes of motorcycle tires and is heartily in favor of the larger, both as to riding and wearing qualities."

F. H. NAGEL.

St. Louis, Mo.

* * *

CANNOT RIDE FOR HALF A YEAR.

NO more motorcycling for six months for C. K. Miles, of 289 North Los Robles, Pasadena, Cal., the young Throop student, who appeared before Judge McDonald recently to answer for the violation of the speed limit. Miles has appeared in South Pasadena courts and been warned by the Pasadena police, because he fairly makes his machine aviate.

A BADLY FOOLED FARMER.

A TOURIST who recently had the misfortune to run over a hen, in addition to damaging his machine and scraping several odd corners off his anatomy, was confronted by an irate farmer who demanded that the battered rider should pay two dollars for the bird. The rider sensibly declined, whereat the farmer threatened legal proceedings forthwith. The tourist, after making a reasonable offer, gave the farmer his card, and rode off. Nothing has been heard from the farmer to date, although that tourist has been hoping for news. Being a lawyer, he knows that no compensation whatever can be claimed for the loss or injury of domestic animals straying in the road. The proper place for a hen is in its own farmyard, says the good old law.

MOTORCYCLE enthusiasm in the City of Brotherly Love is far from being confined exclusively to members of the sterner sex. This group of photographs demonstrates the fact that the young women of Philadelphia are becoming interested. Those whose pictures are shown are the Misses Marie Brophy, Anna Goss and Millie Diehn. They have participated in several runs conducted by their male friends. All three ride Bradley machines.

* * *

WANTS COPIES OF CLUB CONSTITUTIONS.

L. C. MENAGER, one of the members of a committee recently appointed by the Jacksonville Club to draft a new constitution and by-laws, wishes us to request the secretaries of other clubs to send him copies of their governing rules. Menager's address is 2990 St. Johns avenue, Jacksonville, Fla.

* * *

THE El Paso (Tex.) Club was permanently organized a few days ago. The constitution as proposed by the committee was adopted. O. O. Smith was elected president; J. L. Hebbard, secretary, and R. E. Allen, treasurer. D. D. Utt was elected captain.

* * *

THEODORE M. JOHNSON, of La Crosse, Wis., writes that almost every make of machine is represented in that city. Although there is no club, some of the more enthusiastic riders are seeking to promote one.

* * *

CORTLAND, N. Y.—The motorcyclists of this city have organized a club and have elected these officers: President, Ray Tanner; captain, Paul P. Parsons; secretary and treasurer, Ralph H. Ames.

MAKERS AND SELLERS

HOW DIAMOND TIRES ARE BUILT.

IN placing its new motorcycle tire upon the market, the Diamond Rubber Company has assumed that the motorcycle is a *small automobile*—rather than a large bicycle. To this fact has been due in a large measure the immediate success of this tire. It is built in every way to withstand all the wear and tear to which the auto tire is subjected, with a very fine regard to every detail of construction. The casing is as near perfection as it is possible to attain. The tread is tough, wear-resisting and, being heavily corrugated, will not skid or side slip.

"When you consider," says Mr. Harris, of the Diamond Rubber Company, "that there is at least one motorcycle of 7 h., and at least one automobile of only 6 h., our argument appears all the more reasonable. Besides, the motorcyclist is at the mercy of his tire. He can't carry an extra casing, and we purpose to have him feel that with Diamond motorcycle tires as his equipment he is *sure* of reaching his journey's end. At least, if he does not, it won't be the fault of the tire."

* *

MARVEL AGENCY SITUATION.

WE are requested by the Marvel Motorcycle Company, which manufactures the Marvel machine in Hammondsport, N. Y., to correct an erroneous impression regarding the establishment of agencies by that concern. The Marvel folks wish it clearly understood that they will not give away agencies to simply riders. No one, not even a small dealer, can obtain a Marvel representation, unless he has arranged to purchase at least two machines.

The Marvel machine is manufactured in a two-story and attic concrete building 115 feet in length and 30 feet in width. The factory will turn out 500 machines during 1910.

* *

RENEWS HARLEY-DAVIDSON CONTRACT.

THE Harley-Davidson Motor Company has just closed up again with the Hockaday Motorcycle Company, Wichita, Kan., for 1910. The Hockaday people will distribute Harley-Davidson machines throughout the nearby territory and will at all times keep a large stock of Harley-Davidsons on hand. Hockaday is the best known distributor in that section of the country.

* *

HAS AN INVENTION—WANTS CAPITAL.

OTTO TRESSEMER, 37 South High street, Columbus, O., has sent in a rough drawing of an extra tire attachment for motorcycles. He has no capital to patent and manufacture his invention, which appears to have some merit, and in the promoting of which some of the readers of this paper may be interested. Mr. Tresemer would like to hear from anyone so disposed.

* *

NEW ERA AGENCY IN PHILADELPHIA.

THE New Era Auto-Cycle Company, Dayton, O., has lately appointed as one of its distributing agents the Stoddard-Dayton Auto Company, 253-255 North Broad street, Philadelphia. This concern has a large amount of territory both in Pennsylvania, Delaware and New Jersey, and has placed its order with this company for 100 New Eras, to be delivered during 1910.

ENTHUSIASM IN KANSAS AND SOUTH DAKOTA.

BUSHNELL BROTHERS, R.-S. agents, who have a fine store in Aberdeen, S. Dak., inform us that they placed several dozen machines in their immediate vicinity last year and that they expect to deliver as many as fifty machines during the spring and summer of 1910. Their progress in promoting enthusiasm in that part of the country has been rather remarkable, inasmuch as up to last spring there were no motorcycle agents to be found any nearer than St. Paul and Minneapolis.

* *

ELECTRIC WELDING COMPANY MOVES.

THE Toledo Electric Welding Company has moved its offices from Toledo, and is now located in a new factory building at Knowlton and Langland streets, northside, Cincinnati. The factory is fully equipped with the best and most modern tools required for the building of welding machines, and the entire plant is motor-driven. A 75 K. W. single phase A. C. generator supplies the power for testing the welding machines up to their full rated capacity. The shops are lighted by a motor-driven D. C. generator, and new mercury lights have been installed throughout the shop.

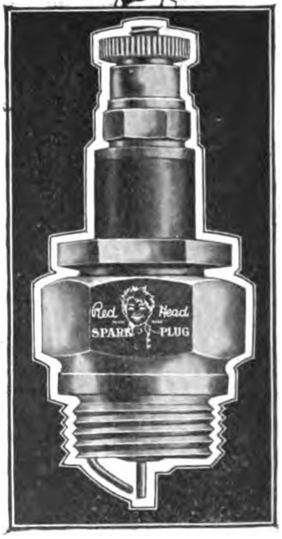
* *

"WILL SHE CLIMB IT?"

OF course she will or, rather, she did. The fine picture on page 5 is that of G. W. Sayre, superintendent of the Reliance Motorcycle Company, ascending one of the "pimples" near Owego. Naturally, he was mounted on a Reliance two-speed machine.

* *

THIS is the latest product of the National Sales Corporation, the Red Head motorcycle spark plug, which has already been described in this paper. The National Sales folks have issued to the trade a combination electrotype sheet and catalogue descriptive of the accessories for which they are the factory sales managers. This pamphlet is so arranged that any of the descriptions may be cut out and pasted into the dummy of a catalogue. Any member of the trade will be furnished with the necessary electros upon applying to the National Sales Corporation.



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THE 1910 catalogue issued by the Greyhound Motor Works, of Buffalo, is a distinctive and altogether handsome little pamphlet. It is gotten up in a form which makes it a convenient fit in the pocket and its general appearance and make-up are altogether pleasing. The text is anything but dry, the illustrations are clear and distinct, the type large and all the other details are such as to make the Greyhound catalogue original and wholly worth while.

TRADE JOTTINGS.

A COMPLETE motor attachment for bicycles, including engine and carbureter, coil, two batteries, commutator, switch, gasoline and oil tank, V belt and pulley, control grip and wire, fork brace, idler and muffler, is now manufactured by the Colorado Motor & Machine Company, of 1814 and 1816 Champa street, Denver, Col. The outfit is built of high-grade material and is made to fit any ordinary bicycle. It is claimed to be thoroughly practical, very light and easily accessible throughout. The complete device is sold for $60.

* *

THE Excelsior staff has just been increased by the addition of H. T. Roberts, formerly with the Harley-Davidson Motor Company, and J. S. Tormey, who until recently was with the Aurora Automatic Machinery Co. The latter will have charge of the Excelsior's new branch in San Francisco.

* *

THE American Motor Co., of Brockton, Mass., makers of M. M. machines, announce the opening of a Portland (Ore.) agency, Ralph R. Ruffner, 124 Third street, having been appointed.

L. A. Peterson, Indian Agent at Waterbury, Conn.

STILL SELLING THE ROYAL PIONEER.

W. H. POTTER wishes it understood that he is still agent for the Royal Pioneer at 55 South Tenth street, Newark, N. J. He also states that he will be glad to mail to any applicant his 1910 catalogue and a handsome 6 x 9 wall-hanger.

* *

INTEND TO BUILD MOTORCYCLES.

THE Werle-Maley Company has been incorporated with $4,000 to do business in New Haven, Conn. Its incorporators are A. M. Werle, A. M. Werle, Jr., and P. J. Maley, and among the objects announced are the "manufacture, sale and repair of automobiles, motorcycles and machinery of all kinds."

* *

HENRY FORD and other stockholders of the Ford Motor Company, of Detroit, have obtained a controlling interest in the John R. Keim Mills, Inc., of Buffalo, N. Y. John R. Lee will continue as manager of the business, which will go on as formerly.

* *

W. H. NEWTON, C. H. Harps and Herbert I. Spinney are the incorporators of the Skowhegan Garage, of Skowhegan, Me., which has a capital of $10,000 and is organized to deal in motor cars and motorcycles.

139
OBERWEGNER MOTOR CO
MOTOR STARTED MON. JAN 24 10 A.M.

REMARKABLE WORK BY YALE MOTOR.

ON Jan. 24, at 10 a. m., a 1910 Yale 3½-h. stock motorcycle was started in the window of the Oberwegner Motor Company's store, 139 Michigan street, Toledo, O. It ran continuously and without a fan or other cooling device, at an average speed of 1,285 revolutions per minute, until stopped at 10 p. m. Saturday, Jan. 29—a period of 132 hours. Immediately after stopping the motor, Mr. Oberwegner took it from the window and, without making one adjustment or repair, rode it on the streets of Toledo for twenty-five minutes at speeds ranging from five to thirty-five miles per hour. He then brought the machine in the store, and with the aid of three experts examined the same carefully and found it to be in perfect condition, motor free, compression and bearings perfect, just as good or better than when it was started five days previously.

* *

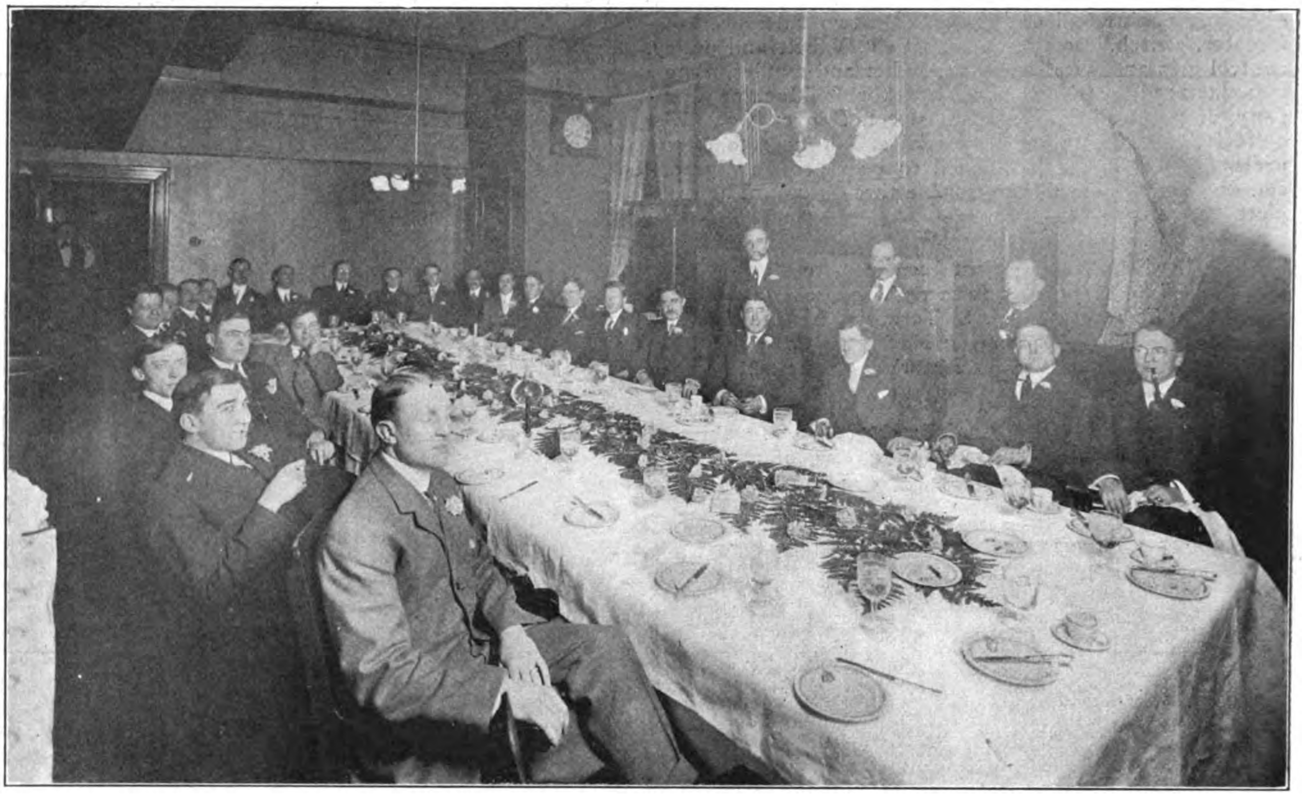
FRED R. HILL, formerly with the New York Warner Instrument Company, and Harry Weber, formerly with Herz & Company, have joined the traveling force of the Stewart & Clark Manufacturing Company, makers of Stewart speedometers. Mr. Hill will make his headquarters at Philadelphia and southern territory and Mr. Weber will be stationed at Kansas City and cover all the southwest.

* *

THE YOUNGEST RIDER IN INDIANA.

CHARLES CALDWELL, of 329 East North street, Muncie, Ind., is only fourteen years old and probably the youngest motorcyclist in the Hoosier State. He rides a Harley-Davidson and takes entire care of his machine. He has never had an accident and in fact handles his mount with greater skill than many riders older than he.

EXCELSIOR FAMILY ENJOYS ITS ANNUAL DINNER



SEVERAL years ago Mr. F. C. Robie, president and general manager of the Excelsior Supply Company, Chicago, established the custom of holding an annual dinner of the leading salesmen and department heads at or about the time of the Chicago Automobile Show. Being an enthusiastic member of the Chicago Automobile Club, Mr. Robie has for some time entertained his guests at the home of that organization.

The 1910 gathering of the clan took place on Thursday, the 3d inst., and was attended by the officers of the company and practically all of their traveling representatives, only two or three being too far from Chicago to get in in time for the dinner. These annual events have been an excellent indication of the growth of the company, increasing in number each year with the growth of the Excelsior Supply Company's several lines of business.

As after the product of the chef has been given full attention, these dinners are largely devoted to discussion of business policy, they have become of great value in the way of promoting good feeling and enthusiastic co-operation among the various departments of the organization. New men on the force are in this way made acquainted with co-workers, and are thus enabled to take hold of their share of the work, feeling that they are an important part of a substantial and well-knit organization.

LAMP SETS AT BARGAIN PRICES.

MOTORCYCLE lamp sets and combined lamps and generators are featured in the advertisement published in this issue by the Motor Car Equipment Company, of 55 Warren street, this city. The combination, which sells for $5, includes a lamp having a Mangin mirror lens. The attached generator is very simply operated and the complete outfit weighs only 23 ounces. It will fit any machine The lamp set, price $6.50, consists of a nickeled generator and a handsome flared front lamp, finished in nickel and having nickel fittings. Triple twist fog horns and mica plugs are also sold by this concern.

* *

IF you ever happen to lose the tire pump washer, you can easily make a substitute from the packing of the valve cap by simply boring a hole in it. Another thing to remember is to give the leather washer on the pump a drop of oil occasionally, as this will make it pliable and prevent any leakage of air. Sometimes a leaky valve can be cured by a drop of oil. This will not get as far as the inner tube and often does the trick efficiently. A good way to work a small patch into place is to press it firmly on to the tube with a fifty cent piece, if you ever have one.

BAY STATE CLUBS MERGE.

MEMBERS of the Commonwealth and Massachusetts clubs at a meeting held on Feb. 4 voted to merge the two organizations in the Boston Motorcycle Club. It is believed that one large club can accomplish more than two smaller ones. J. Fecitt was elected president; P. N. Richardson, vice-president; F. M. Wyman, secretary; S. L. Durkee, treasurer; A. P. Howe, captain; W. P. Frost, first lieutenant, and C. D. Anderson, second lieutenant. The executive committee consists of the above named officers and Dr. Robert L. Colson and J. P. Tonner.

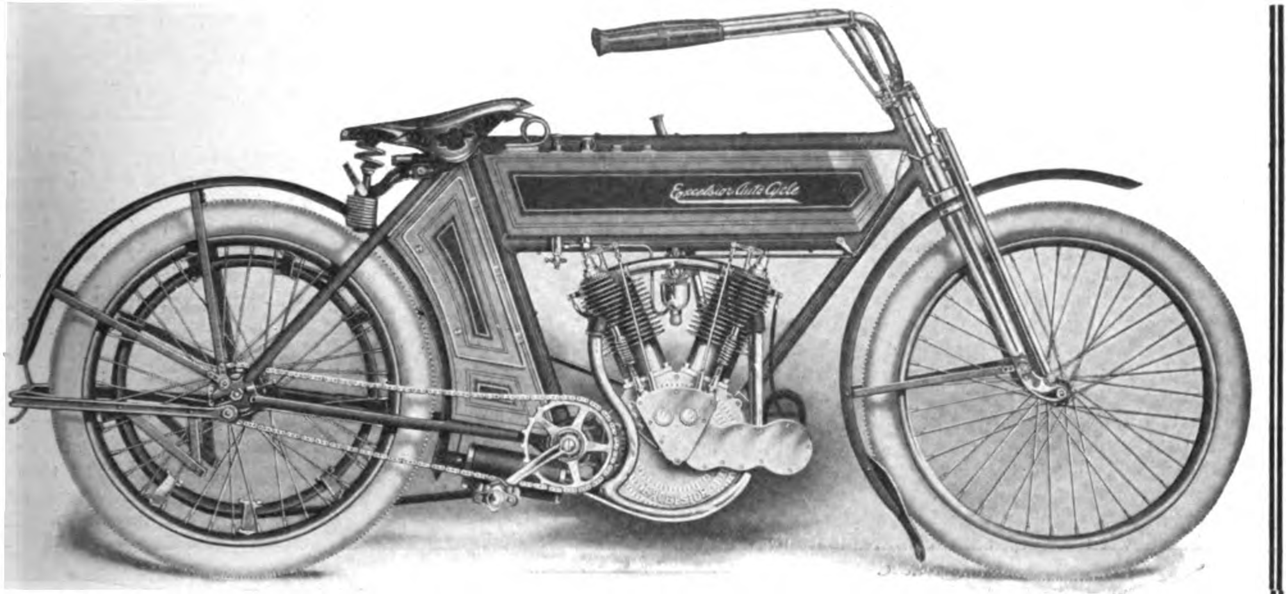
* *

RAY C. PHILLIPS has just obtained the Wagner Agency for Sioux City, Iowa. The Wagner Company has also completed arrangements with the Southern State Motorcycle Company, of Atlanta, Ga., to have that concern act as distributors for and handle the Wagner exclusively in the Southern States.

* *

AT an enthusiastic meeting of the Poughkeepsie Club early this month, it was decided to affiliate the club with the Federation.

EXCELSIOR AUTO-CYCLE



You Do Not Worry as to Whether your Oiler is Working, You just look down and see it flow!

When the first Excelsior Auto-Cycle was placed on the market, it became immediately notable for the many valuable features found in no other motorcycle.

It has always retained its lead.

The 1910 Excelsior Auto-Cycle is the only motorcycle equipped with a positive lubricating system in the rear hub and brake mechanism.

It is the only motorcycle with mechanical force feed lubricating system with sight feed in plain view of the rider.

These are just two vital points in the matter of lubrication. Every other part is equally far ahead.

See the nearest dealer or write for catalog E 10 which shows them all.

EXCELSIOR SUPPLY COMPANY

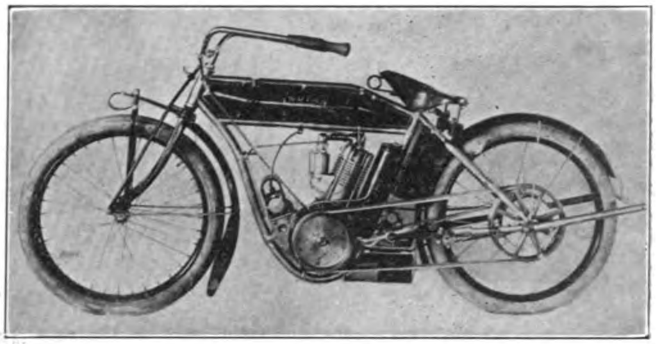
Established 1876

233-237 Randolph St., Chicago, Ill.

Eastern Representative
STANLEY T. KELLOGG
2312 Broadway, New York

Pacific Coast Branch
361-363 GOLDEN GATE AVE.
San Francisco, Cal.

ENTIRELY NEW BELT DRIVE FITTED TO THE INDIAN.



As a result of thoroughgoing tests, the Hendee folks have produced a belt drive of an entirely new style, one which is said to meet every scientific and technical requirement. The trial machine has been run over 4,000 miles on the open road, and has absolutely demonstrated its efficiency and durability. The four elements upon which the efficiency of the belt drive depends are: First, the arc of contact of the belt with the pulleys; second, speed of belt; third, width of belt; fourth, the tension. If the tension is increased it rapidly eats up power, and in the ordinary belt drive, with a very small and a very large pulley, the tension is so excessive that it taxes the limit of endurance in the frame, and it is evident that this element should be reduced. This has apparently been successfully accomplished in the new Indian drive.

If any one of the three elements above stated are increased over ordinary existing conditions, the tension of the belt can be decreased, with a consequential gain in efficiency, and also in the life of the belt. In the new Indian system material gains have been made in at least two directions, namely, an increased arc of belt contact by employing a larger driving pulley, and also by considerably increasing the speed at which the belt operates.

A flat, endless belt is employed, with a width of 1½ inches, which is considered amply sufficient for the work. The driving pulley is 8 inches in diameter, while the driven pulley is 10 inches in diameter, thus affording practically an arc of 180 degrees of contact on each pulley, which with the wide belt overcomes slipping, while the large pulleys are conducive to long life in the belt. The pulley on the engine shaft is plain, but that on the rear drive wheel is combined with a very simple and substantial planetary gear of a new design that prevents friction; and by this arrangement the belt is enabled to run at a very high speed, thus adding one more element of efficiency and economy, and by means of the planetary gear the ratio of drive from the engine to the rear wheel is 4⅓ to 1, which has been found to be the most desirable for all-around work. A simple method for taking up slack in the belt is provided, and it at the same time adjusts the pedaling chain and all connections.

In operating the planetary gear a clutch is employed that is made in the simple form of a large band brake which has a drum of ample size to make the operation of the clutch very smooth and effective. This arrangement provides for an absolutely free wheel which results when the clutch is released, and enables the rider to throw in the drive very smoothly and quickly; and the undesirable method of slipping the belt to free the motor is entirely superseded.

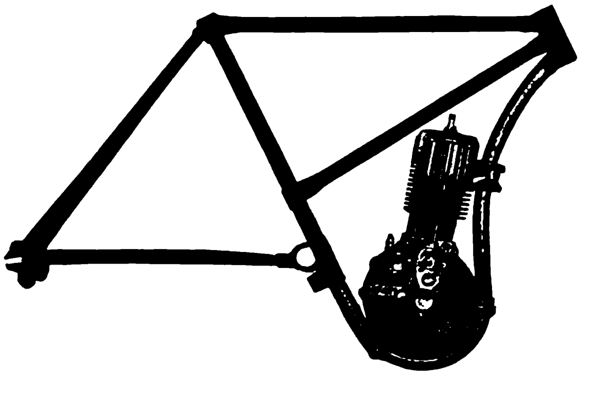
Tearing around the three and one-half lap saucer track at the Coliseum, in Los Angeles, two Sundays ago, for thirty minutes without a stop, and rolling up a total of 35 miles, 2 laps and 102 yards in that space of time, F. E. Whittler, on a Merkel, added another victory to his already long string.

The ten-mile event for trade riders, on 7 h. double-cylinder machines, was the most exciting. Three riders started, Graves on his Indian, Balke on the big Thor, and Ray Seymour on the Reading-Standard. Graves and Seymour furnished the first real motorcycle racing seen in Los Angeles for years. So even were they matched that, when the tape was crossed, after completing the ten miles, the judges were unable to declare a winner.

At the gun the little R.-S. rider surprised Graves, and jumped into the lead. Graves moved up gradually and was on even terms with the Reading boy. Finally he forged ahead a trifle. On the next lap or so Seymour played the same game, and took first position again. When the ninth mile was finished the boys were even, both riding at a ninety-mile an hour clip, with elbows separated by, perhaps, six inches. In this same position they took the high turns and swept around the track for the last three laps, crossing the line, for a dead heat, in 8 minutes 19⅖ seconds. This was easily the finest contest of the day.

The first event on the program was a four-mile affair for amateurs, in which three boys started—Hubert Kittle on a Thor, J. R. Kittle on an Indian, and Raymond Seymour on a Reading-Standard. Seymour jumped into the lead, and won easily in 3:43½. Hubert Kittle took second, and his brother, J. R., third. Graves captured the second race with his fast little Indian single, making the six miles in 5:43⅗. Seymour experienced some trouble, and took second place.

The thirty-minute race, which was a free-for-all professional affair, brought four Western speed kings to the tape—Paul Derkum, on a Thor; Whittler and Mitchell, riding Merkels, and T. H. Samuelson on the R.-S. Mitchell and Whittler got off in the lead and were never headed during the entire thirty minutes of riding. Derkum, out of a sick bed forty-eight hours, was handicapped, and after finishing the race was in bad shape. Mitchell and Whittler, for the first twenty-five miles, were on even terms, and a pretty duel resulted. In the twenty-eighth mile, however, Mitchell was compelled to change machines, and lost a lap in so doing.



This is the Wagner frame, which is of exclusive design, having three bars terminating in the fork head. The first and second bars form the diamond, and are of 16-gauge tubing. The lower bar, of 14-gauge tubing, makes the loop around the engine. It will be noted that the motor is hung low and well forward, so that a perfect balance is obtained. The seat mast and loop are one continuous piece, and there is no separate exhaust pipe, as the waste gases are carried from the engine through the loop frame to the muffler. The standard equipment is the Wagner special twin fork, or a spring fork if desired by the purchaser. The company will furnish either rubber or Wata-Wata leather belts. The Tourist battery machine sells for $200, the spring fork battery for $210, and the magneto model for $225.

Reliance

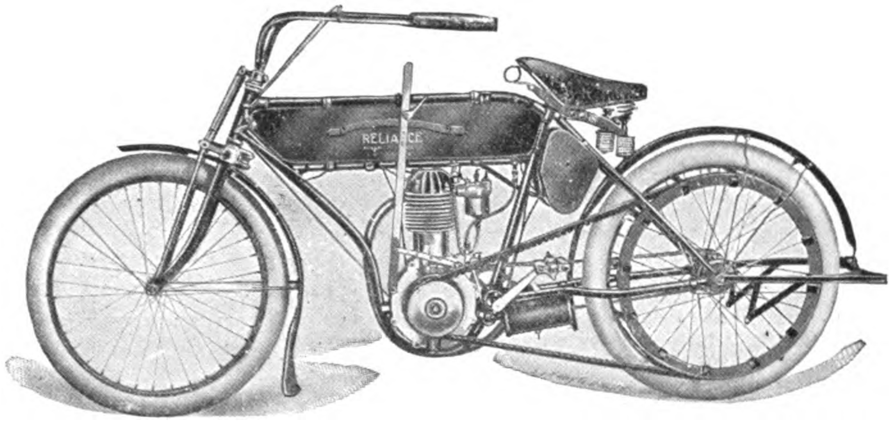
**Seventh Successful Season
of the
Reliable Reliance**

THE ONE NEW THING IN MOTORCYCLES AT THE CHICAGO SHOW

A COUPLE OF FEATURES:

Truss SPRING Fork, the most flexible and enduring made.

Two-Speed and Free Engine Transmission Gear, the FIRST practical, compact arrangement made. Largest Clutch, Largest Gears and Largest Wearing Surfaces. One lever control.



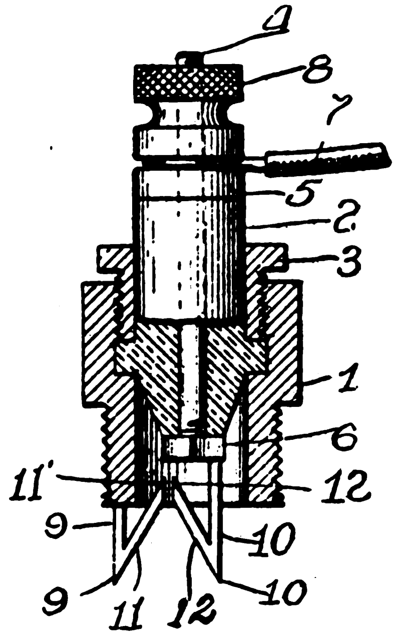
With this transmission the rider can start from standstill on the steepest hill. An absolute necessity for the construction of the perfect motorcycle. Full details in our catalogue, let us send you one.

RELIANCE MOTORCYCLE CO.
OWEGO, N. Y.

Member Motorcycle Manufacturers' Association

A NEW SPARK PLUG, A TWO-CYCLE ENGINE AND A NOVEL STAND.

AMONG the patents recently allowed by the national patent authorities is one for a spark plug to Arthur A. Davis, Chicago, Ill., assignor of one-half to Benjamin Grieshaber, Chicago, Ill. This plug comprises a pair of electrodes arranged for a portion of their length in parallelism and having their ends bent backward at an acute angle to the parallel portions and provided with discharge points beneath the bends and having their terminals arranged in opposition to each other.



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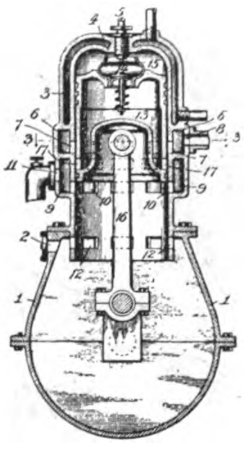
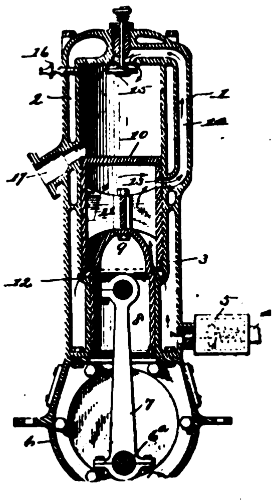
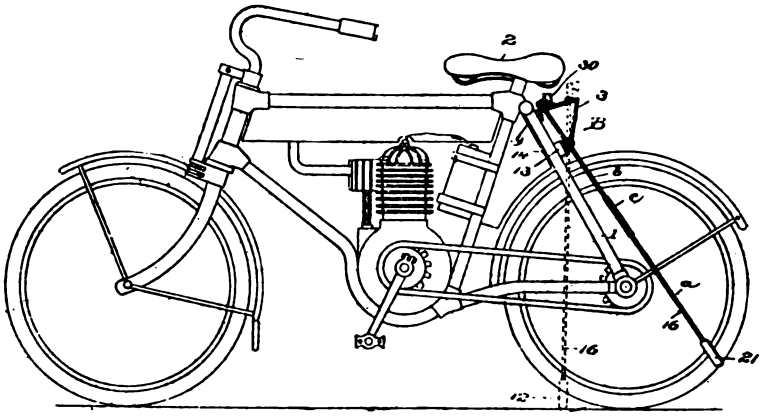
Gas Engine.—Alvaro S. Krotz, Chicago, Ill. A two-cycle engine, with combination of a closed crank casing, an engine cylinder connected thereto, a chambered piston arranged in the cylinder, and an inlet valve arranged in the upper end of the piston and controlling a port between the chamber of the piston and the combustion chamber of the engine, the piston having a lateral passage adapted to register with the chamber of the crank casing when the piston is in its lower position and establish communication between the chamber in the piston and the crank chamber.





Explosive Engine.—Reinhardt Nessler, East Oakland, Cal. This engine consists of a cylinder having laterally opening inlet ports and an exhaust port, a by-pass leading from the side of the cylinder to the explosion end, and a compound piston working in the cylinder, this piston comprising upper and lower downwardly open cylinders, the lower cylinder having a dome extending the upper cylinder receiving an explosive into the upper one, charge through the inlet ports, and having a slot registering with the by-pass at the end of each alternate stroke of the piston.

Cycle Stand.—Edwin H. Stayt, Spokane, Wash. This comprises a frame adjustably mounted on the machine frame and having slots, supporting members mounted on the frame to swing on axes disposed at right angles to each other, the upper extremities of the members being guided by the slots and devices for holding the supporting members in operative or inoperative position at the opposite ends of the slot. Toggle links are connected with the legs and arranged to hold them in inoperative position when the links are straightened, and a pivoted latch on the frame is arranged to engage the legs for holding them in operative position.



The Motorcycle Equipment Company, of Hammondsport, N. Y., is now installed in its new 115 x 30 feet concrete building, which, by the bye, is the largest factory building in that town. This company deals exclusively in motorcycle accessories, and at its new plant carries an enormous stock. The policy of these folks is to ship goods the same day as ordered. John W. Van Ness has been appointed manager of the company. This concern issues a free catalogue covering every possible motorcycle need.

⁂

More and more, day after day, many young chaps who are also ardent motorcyclists are taking on agencies. One of the newcomers is W. R. Schoonmaker, of Arcola, N. J. Last year he did some tentative work with the Excelsior in connection with his regular employment; but this season he intends to devote all his time to pushing that machine in Arcola, Hackensack and Paterson. In fact, he may open a store in either one of these towns. Mr. Schoonmaker reports that motorcycling is experiencing a genuine boom in Hackensack. Last year there was a club consisting of no more than three members, whereas the present membership is thirty. Besides the men who already ride Mr. Schoonmaker reports that a great many chaps are interested in motorcycling and will undoubtedly buy this year.

⁂

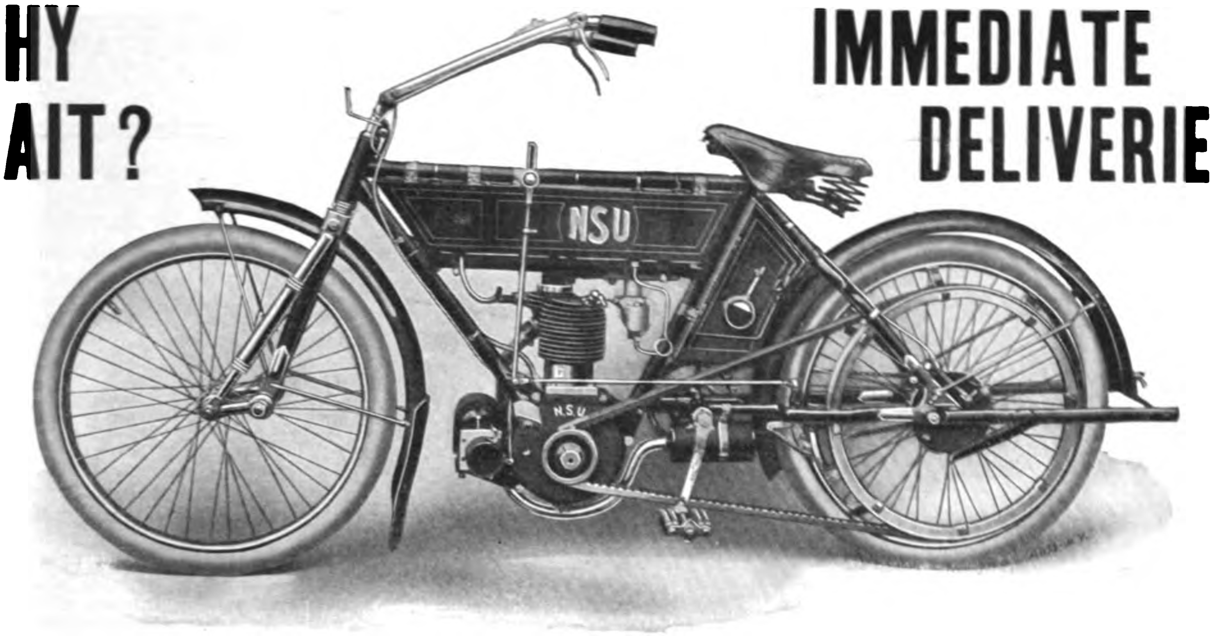
Colorado Springs, Colo. There are quite a number of motorcycle riders here, who are looked after by four agents. Lucas handles the Indian, Harley-Davidson and Pierce. Sheff & Riggs handle the R.-S. and Thor, E. Stratton the Excelsior and Merkel, while Clark represents the Minneapolis. Mr. M. L. Marr, one of the most prominent riders in town, who uses a twin Indian, writes that the roads are very good, while the mountain scenery is unsurpassed. Colorado Springs has one hundred and seventy-five motorcycle riders and seventy-five automobiles. There is a half-mile unbanked dirt track on which a mile has been made in 1.12. There is also an auto club and an Excelsior club. The former is very active in road betterment, road direction signs, etc.

⁂

George W. Jenkins, of 8 West Sixtieth street, the aggressive M. M. agent in New York, has sold to C. L. Bowler, Jr., of Asbury Park, N. J., two M. M. machines with side-car attachments, which will be used for the delivery of eggs. The car portion has been transformed into a huge counterpart of a "hen fruit," and is bound to be a big advertisement for Mr. Bowler.

WHY WAIT?

IMMEDIATE DELIVERIES



3½ H. P. F. A. M.

NSU

IT BEHOOVES every thoughtful buyer to go thoroughly into the extraordinary specifications which has made this single cylinder motorcycle so wonderfully popular.

Built on those lines and ideas which have suggested themselves as being nearer the ideal than any motorcycle ever offered to the motorcycling public.

We are sure you will be interested in the complete specifications and PARTICULARLY IN THE PRICE, which is within the reach of every one and includes a most complete equipment, such as: Magneto ignition with handle bar switch, two brakes, M. O. valves, stand, Q. D. wheels and mud guards, large tool kit, spring forks, etc.

TWO SPEEDS AND FREE ENGINE

FITTED TO ALL N. S. U.

JUST A CARD WILL BRING CATALOGUE "M"

N. S. U. MOTOR CO. [Members M. M. A.] 206 W. 76th St., N. Y. City

NEW F. A. M. CONSTITUTION AND BY-LAWS

Adopted at Special Meeting in Chicago Last Week.

CONSTITUTION.

ARTICLE I.

NAME AND OBJECT.

SECTION 1. The title of this organization shall be the Federation of American Motorcyclists.

SEC. 2. Its object shall be to encourage the use of motorcycles and to promote the general interests of motorcycling; to ascertain, defend and protect the rights of motorcyclists; to facilitate touring; to assist in the good-roads movement, and to govern and administer the sport of motorcycle racing and other competitions in which motorcyclists engage.

ARTICLE II.

MEMBERSHIP.

SECTION 1. Any white person over sixteen years of age, of good character, and who has complied with the by-laws of the F. A. M. relating to applications for membership, shall be eligible to membership.

SEC. 2. Honorary membership may be conferred by a majority vote of the National Assembly of the F. A. M. upon any person who has distinguished himself or rendered unusual services in the promotion of motorcycling.

ARTICLE III.

THE NATIONAL ASSEMBLY.

SECTION 1. There shall be held between June 15 and September 15 of each year a National Assembly of members of the F. A. M., at such place and time as the Board of Directors may decide upon, and not less than sixty nor more than ninety days' notice of such meeting and the hour and place to be held shall be given. Announcement of such meeting in the recognized motorcycle journals shall be considered as sufficient notice to all members. Fifty members personally present shall constitute a quorum.

SEC. 2. The National Assembly, when in session, exercises the whole power and authority of the F. A. M., except as restrained by this Constitution and the By-Laws of the F. A. M.

ARTICLE IV.

SECTION 1. For convenience of government this Federation shall be subdivided into four districts, which shall be styled Eastern, Southern, Western and Pacific districts, respectively.

SEC. 2. The Eastern district shall comprise the New England States and New York, New Jersey, Pennsylvania and Delaware.

SEC. 3. The Southern district shall comprise the States of Maryland, Virginia, West Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi Missouri, Louisiana, Texas, Arkansas and the District of Columbia.

SEC. 4. The Western district shall comprise the States of Ohio, Indiana, Michigan, Illinois, Wisconsin, Minnesota, Iowa, Nebraska, South Dakota, North Dakota, Kansas, Montana, Wyoming, Colorado, New Mexico and Oklahoma.

SEC. 5. The Pacific district shall comprise the States of Washington, Oregon, California, Nevada, Idaho, Utah and Arizona.

ARTICLE V.

SECTION 1. The officers of the Federation shall be a President, a Vice-President for each of the four districts, a Secretary and a Treasurer, who shall be elected for a period of one year. The governing body of the F. A. M. shall be six directors, who, together, with the two living preceding ex-Presidents and the President, shall constitute the Board of Directors.

SEC. 2. The office of Secretary and Treasurer may be filled by one person on the majority vote of the National Assembly.

SEC. 3. The National officers shall be elected by ballot at the annual meeting of the National Assembly—the President, the four Vice-Presidents, one from each district, the Secretary and Treasurer, for the term of one year, and the six Directors for a term of three years and until their respective successors have been severally elected and have accepted their offices.

NOTE.—At the first election after this Constitution has been adopted the two Directors receiving the highest number of votes shall serve for three years, the two next highest two years, the next two one year. At each annual election thereafter two Directors shall be elected to serve for a period of three years.

SEC. 4. The candidate for any national office who has received the highest number of ballots cast shall be declared elected, and his term of office shall begin ten days after the date of said election, and upon being duly qualified.

SEC. 5. The President of the F. A. M. shall be the chief executive officer of the F. A. M. and the presiding officer of the National Assembly. He shall manage the affairs of the F. A. M., but subject always to this Constitution, the By-Laws of the F. A. M., the resolutions of the National Assembly and those of the Board of Directors.

SEC. 6. There shall be the following National Committees, consisting of six members each, one member of each of which must be a Director, to be appointed by the President, who shall also appoint the Chairman of each Committee. All such appointments shall be for the remainder of the current Presidential term, and shall be subject to the approval of the Board of Directors when duly convened. The President may appoint additional members to serve on any National Committee. Said Committees must be appointed within sixty days after the President has qualified, but if the President fails to appoint these Committees, the Board of Directors shall do so. These Committees shall be known as:

Membership.
Legal Action.
Competition.
Highway Improvement.
Tours and Hotels.
Transportation and Facilities.
Press.

SEC. 7. The President shall appoint the Director who is to serve on each National Committee, and the chairman of each National Committee. The President may appoint additional members to serve on any National Committee. All such appointments shall be for the remainder of the current presidential term and shall be subject to the approval of the Board of Directors when duly convened.

ARTICLE VI.

SECTION 1. This Constitution may be altered or amended by a two-thirds vote of the Members present at any regular meeting, or at any special meeting called for the purpose. In cases of extreme necessity, as determined by a majority of the Board of Directors, a mail vote of the Assembly may be taken and a three-fourths vote of all votes cast shall be required for adoption of proposed amendments.

Notice of all proposed amendments shall be given thirty days in advance of such meetings of said mail vote.

Notice of proposed changes in the Constitution published in recognized motorcycle trade journals shall be considered sufficient notice.

BY-LAWS.

ARTICLE I.

APPLICATIONS FOR MEMBERSHIP.

SECTION 1. All applications shall be endorsed by at least two members of the Federation, or by two reputable citizens of the town in which the applicant may reside, and may be addressed to the National Secretary or the district Vice-President, and shall be accompanied by an initiation fee of $1 and the membership fee of $1 per annum, all money to be transmitted by the National Secretary to the National Treasurer on the first day of each month after its receipt.

SEC. 2. An application for membership in the F. A. M. may be presented to the Vice-President of the F. A. M. in whose district the applicant resides, and all such applications shall immediately be forwarded by the Vice-President to the National Secretary, together with the entrance fees.

SEC. 3. Any regularly organized motorcycle club having an active membership of not less than fifteen members may become known as an affiliated club of the F. A. M. by enrolling and keeping enrolled in the national organization at least seventy-five per cent. of its membership, a certified copy of such affiliated club's membership roll to be forwarded after its annual meeting each year, to the National Secretary of the F. A. M. in order that such affiliation may be maintained. In consideration thereof the F. A. M. initiation fee for each individual member of such club shall be waived, provided that such individual applications for

YOU CAN'T GET AWAY

from the fact that it is "value" you buy and pay for when you purchase a motorcycle or a hat or a pair of shoes. You *pay* for it always; but do you always *get* it? Consider the motorcycle situation as it is now. Compare it with known conditions in the automobile field. What is it that makes a really good car possible at $1,500? "Quantity," that's the answer. Purchase in quantities. Manufacture in quantities. Sell in quantities.

Just so in making motorcycles. That's what makes the M. M. 3½ h.p. Battery Special at $200 possible. That's why we can market the 4 h.p. Magneto Single for $225 and the 7 h.p. Magneto Twin for $300. We're not handing out any tall tales about how many machines we're "going" to make this year. But just let this sink in. Ten per cent. (10%) of the total motorcycle output in this U. S. A. for 1910 will come right from Brockton, Mass. The other 90% will be divided among the 23 exhibitors at the Chicago Show. Those makers too small to exhibit at the Show we've left out of the figuring entirely.

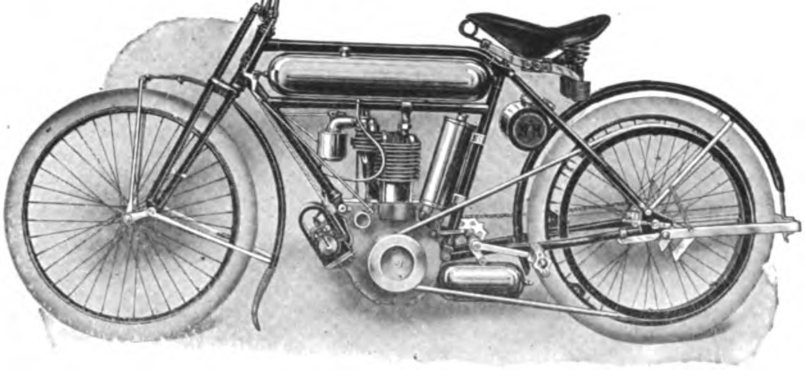
If you want your money's worth buy an M. M. You get value received, more motorcycle for a dollar than you can buy anywhere else. You get more original features, the improvements riders have been clamoring for. For instance, the new M. M. automatic stand, or the original M. M. leaf spring fork suspension, or the M. M. emergency fuel tank. And just remember this, *"you saw it in the M. M. first."*

The riding season will soon be here. Better book that order right now. If you're still "on the fence" let us send you the name of our nearest agent so you can get a conclusive demonstration that the M. M. is the machine you want.

AMERICAN MOTOR CO., 716 Centre St., Brockton, Mass.

Member Motorcycle Manufacturers' Association

Distributors: Boston, 173 Huntington Ave.; New York, 10 W. 60th St.; Buffalo, 895 Main St.; Chicago, 2127 Michigan Ave.; Dallas, Tex., M. M. Building, So. Ervay St.; Los Angeles, 1034 So. Main St.



M. M. 4 h.p. Magneto Single. Roller bearing motor, 1⅞" valves mechanically operated, emergency fuel tank, automatic oiling system, automatic stand, etc. Price $225.

membership shall be certified by the Secretary of the club of which the applicant is a member.

Sec. 4. The Directors may make such regulations as they may deem desirable for publishing the name and address of each new applicant for membership.

ARTICLE II.

MEMBERSHIP.

Section 1. Membership shall begin on the date borne by the membership card as issued by the National Secretary.

Sec. 2. Any person who is not a member of the F. A. M. desiring to engage in any competition events sanctioned by the F. A. M. may, upon the payment of $2 to the official referee, be considered as an F. A. M. member for 15 days. The referee shall give a receipt for such application and forward the application, together with the membership fee to the chairman of the Competition Committee, who in turn shall forward same to the National Secretary. Receipts given by the referee at any race meet are not to be recognized after fifteen days from date of same, it being understood that after such time the person making payment to the referee shall either receive regular membership card or his membership be rejected.

Sec. 3. Members shall be assigned to the District whose bounds include the residence of such applicant, or may be upon application assigned to such district where his business or motorcycle club is located.

Sec. 4. The National Secretary shall, at the expense of the F. A. M., furnish each member with a membership card and the official emblem in use: and shall also furnish each member with a card each year upon receipt by him of the annual dues; also such other matter as may be authorized by the Board of Directors.

Sec. 5. The membership card shall contain the member's name, number and address and indicate the year and day of the month to which the dues have been paid and on which the membership will expire. The Directors shall annually direct the form, style and language of the membership cards, and shall make each issue distinctive from the cards of other years.

Sec. 6. After the annual membership card has been issued to a member, if the member's card is lost or mislaid, or the member's residence is changed from the bounds of one district to within those of another, the member may apply in writing to the National Secretary for a duplicate card. The application must be accompanied by a fee of 10 cents. New emblems will be furnished at 50 cents each. Members shall be notified upon the expiration of membership. A member may renew his membership at any time within two months of its expiration, or at any time after its termination, but in no case shall he be excused from paying full dues for each complete year of membership.

Sec. 7. The National Secretary shall keep a correct roll of all the members of the F. A. M., and each district Vice-President shall keep a correct roll of all the members enrolled in his district. The rolls shall be kept in the form and manner to be directed or allowed by the National Directors. The district Executive Committee may give to the district Secretary any further directions not inconsistent with those of the National Directors.

ARTICLE III.

DUES AND FINANCES.

Section 1. Each member shall pay annually as dues the sum of $1.

Sec. 2. The annual dues may be paid either to the National Secretary or to the Vice-President of the district in which the member is enrolled. When paid to the district Vice-President he shall immediately forward such monies to the National Secretary. The accounts between the National Treasurer and each district Treasurer shall be settled quarterly.

ARTICLE IV.

ELECTIONS.

Section 1. No member of the F. A. M. shall be entitled to vote at any election when in arrears for annual dues.

ARTICLE V.

DUTIES OF OFFICERS.

Section 1. The President shall preside at all meetings of the National organization and Directors, appoint committees, fill vacancies and generally perform the duties that appertain to his office and not otherwise provided for. In the event of a vacancy occurring the Vice-President of the district in which the former President resided shall succeed to the office pending his confirmation by the Board of Directors.

The President may call meetings of the Directors at his option and shall call them on the written request of any three Directors. He shall call special general meetings on the written request of any twenty-five members, which request shall state the objects of such meeting.

Sec. 2. Each Vice-President shall be ex-officio Chairman of his district, and shall perform all the duties relating to such office so far as they apply to his district organization, which organization shall be construed as one which has adopted rules and regulations at an open meeting of its members, which rules and regulations are not to be in conflict with the Constitution and By-Laws of the National organization. These district rules and regulations shall require the holding of a meeting of the district members at least thirty days and not more than sixty days previous to the annual meeting of the F. A. M., at which district meeting there shall be selected the nominees for the Vice-Presidency of such district, who shall be duly presented for election at the annual meeting of the organization. At least thirty days after the meeting of the National organization the Vice-President of each district shall call a meeting of the members thereof, at which there shall be elected a district Vice-Chairman, a district Secretary and a district Treasurer, and it shall devolve upon the Vice-President administering the affairs of such district to appoint such committees as may be provided for by its rules and regulations.

The district Vice-President shall exact a bond from the district Treasurer for an amount decided upon by a district Executive Committee, and shall forward the same to the President before the National Treasurer will be authorized to make remittances of the funds belonging to the said district.

The expense of said bonds shall be borne by the district in which the Treasurer resides.

The accounts between the National Treasurer and the district Treasurer shall be settled quarterly, and copies of each account shall be mailed by the National Treasurer and the district Treasurer to the President not later than the 15th day of the month following.

Sec. 3. Each Vice-President shall file with the National Secretary a certified copy of any rules or regulations adopted by his district, and also the names and addresses of all its elective officers and appointees and the offices to which they are appointed.

The Vice-Presidents shall appoint in each State represented by their membership a State official who shall be termed State Commissioner. At the annual meeting of the F. A. M. the Vice-Presidents shall render written reports summarizing the proceedings of their districts during the year.

Sec. 4. The National Secretary shall keep all minutes and records such as pertain to his office. He shall enroll members in the order of receipt of their applications, and shall supply to each a numbered membership card and the official emblem, and shall promptly report the names and addresses of all new members to the chairman of the Competition Committee and to the Vice-President in whose district the applicant resides. He shall also notify all members, at least thirty days in advance, of the expiration of their membership.

The National Secretary shall keep such records and accounts as shall be provided for by the Board of Directors and turn same over to his successor after they have been duly audited by a Committee appointed for that purpose. All funds received by the Secretary are to be remitted to the National Treasurer on the first day of each month, and a receipt taken therefor.

The National Secretary shall give bond in such sum as shall be decided upon and approved by the Board of Directors, the expense of such bond being paid by the National Organization.

Sec. 5. The National Treasurer shall receive all moneys and shall keep proper books of accounts as shall be provided for by the Board of Directors. He shall pay out no money except on the written approval of the President and two other members of the Board of Directors, or of a majority thereof. He shall forward quarterly to the President and the Secretary a certified, itemized report of all receipts and disbursements, and shall render a report at each annual meeting. He shall forward quarterly to the Treasurer of each respective district one-fourth of all membership fees received from such district, and shall obtain receipt for all such remittances. His accounts shall be audited preceding the annual meeting by a committee of three appointed by the President from the general membership. He shall give bond in such sums as may be determined by the Board of Directors. The expense of said bond shall be borne

Also Users Know

Diamond

Motorcycle Tires

Los Angeles, Cal., Dec. 10, 1909.

Diamond Rubber Co., Los Angeles, Cal.

Gentlemen:—I take pleasure in voluntarily telling you of the satisfaction I am having with the use of your new motorcycle tire. For some five months past I have used a "**Diamond**" tire on the rear wheel of my six horse power N. S. U. motorcycle, which, by the way, is one of the very heaviest and fastest touring machines made. During most of the entire time I have carried an extra person on tandem attachment over this tire. The distance so far is over 2,500 miles. The raised tread shows little wear, and it seems as though it might take double this mileage to even wear the tread smooth. It matters not how hard the tire is blown up; it has great resiliency and rides very easy. I have never had it lose traction or skid at any time. There have been no punctures, it being tough enough to apparently resist being punctured.

Comparing all my past experience of five years riding different makes of tires, I certainly can say that the new "**Diamond**" motorcycle tire is certainly a wonderful production, and greatly improves the pleasure of motorcycling.

Yours very truly,

S. L. LYON.

The
Diamond Rubber Co.
AKRON, OHIO

Diamond
Motor Cycle

by the National organization. All books and records kept by the Treasurer shall be turned over to his successor after being duly audited by the committee appointed for that purpose.

ARTICLE VI.

BOARD OF DIRECTORS.

SECTION 1. The President, the two preceding living ex-Presidents and six other members elected for a period of three years each shall constitute the Board of Directors. The President shall call a meeting of the Board of Directors upon request of three members, or may call a meeting at his option at any time the affairs of the F. A. M. may require. A mail vote of the Board of Directors shall constitute a meeting. A majority of the Board shall constitute a quorum.

SEC. 2. The Board of Directors shall have cognizance of and determine matters affecting the welfare of the F. A. M. and authorize and control all expenditures, and shall order the payment of such bills as may be necessary for the running expenses of the F. A. M.

SEC. 3. The Board shall have the power to fill all vacancies which may occur from death, resignation or otherwise, among the officers or directors, and not otherwise provided for. It shall have power by a two-thirds vote to remove or suspend any officer for sufficient cause, and appoint a member of the F. A. M. to discharge the duties of such officer for the unexpired term, and the decision of the Board shall be final.

The Board of Directors shall have power to make such rules and regulations as they may think proper, not inconsistent with the Constitution and By-Laws of the F. A. M.

ARTICLE VII.

DUTIES OF COMMITTEES.

SECTION 1. The Membership Committee shall devise ways and means of increasing the membership, and shall investigate and report on any protested applicant, which report shall be final and subject only to overruling by a two-thirds vote of the members present at any regular meeting.

SEC. 2. The Committee on Legal Action shall devise and have direction of all matters affecting legislation and involving action at law. It shall be its duty to ascertain and defend the rights of motorcyclists and to supply members with such advice and assistance as may be within its power.

SEC. 3. The Competition Committee shall keep suitable records, have charge of and generally oversee all matters affecting competition. It may promote contests designed to increase interest in motorcycling, and devise and apply rules and regulations for their government.

SEC. 4. The Committee on Highway Improvement shall use its best endeavors to promote the improvement of the public highways, and, so far as practicable, shall join in all movements to that end.

SEC. 5. The Committee on Tours and Hotels shall seek to compile road maps and road books, to promote touring and to assist tourists with information. It may appoint as official hotels any hotels deemed worthy of such designation.

SEC. 6. The Committee on Transportation and Facilities shall endeavor to promote the convenience of carriage of motorcycles by rail and water, and to organize by official appointment a system of supply stations and repair depots best fitted to meet the requirements of motorcyclists.

SEC. 7. The Press Committee shall devise and have direction of all matters affecting the publicity of the F. A. M., and shall devise ways and means of increasing interest in the F. A. M. and in motorcycling generally, through the medium of the journals and the public press.

SEC. 8. The acts of the Chairman of any Committee shall be subject to the approval of a majority of the Committee over which he presides.

SEC. 9. The Chairman of any Committee handling funds of the F. A. M. shall forward quarterly to the President and the Secretary a certified itemized report of all receipts and disbursements, and when so ordered by the Board of Directors shall forward all moneys in his possession to the National Treasurer, and shall render a report at each annual meeting.

SEC. 10. The Board of Directors shall require bond from the chairman of any member of any committee who handles funds of the National Organization, the amount of said bond being determined by the Board of Directors, and the expense of same being paid by the organization.

SEC. 11. No committee shall incur any expense without the approval of the Board of Directors.

ARTICLE VIII.

MEETING OF THE NATIONAL ASSEMBLY.

SECTION 1. The annual meeting of the National Assembly shall be held between the dates of June 15 and September 15, at such time and place as the National Directors shall deem most advantageous to the F. A. M. The National Directors shall declare their selection of the place for holding the annual meeting of the National Assembly not less than sixty days nor more than ninety days before the day appointed for the meeting, and notice of said call being published in the recognized motorcycle journals shall be deemed sufficient notice. Special meetings of the National Assembly may be called by the President of the F. A. M., with the advice and consent of the National Board of Directors. At least thirty day's notice, published in the recognized motorcycle journals, shall be given of the time and place of holding such a meeting.

SEC. 2. The President shall call a meeting of the National Assembly upon a written request of at least twenty-five members, said request to state the object or objects of said meeting.

ARTICLE IX.

ORDER OF BUSINESS.

SECTION 1.
1. Calling the roll.
2. Reading of the minutes.
3. Report of the President.
4. Report of the Secretary.
5. Report of the Treasurer.
6. Report of the National Committees.
7. Special reports and communications.
8. Election of officers.
9. New business.
10. Unfinished business.

SEC. 2. The usual parliamentary rules governing deliberative bodies shall be observed and enforced by the President, and in case of an appeal from the President's ruling Roberts' Rules of Order shall be used and considered final.

ARTICLE X.

TRANSFERS, CHARGES AND EXPULSIONS.

SECTION 1. Any member removing from one district to another may obtain membership in the latter district by filing with the Secretary notice of such removal, as provided for in Article II, section 6. The Secretary shall notify the Vice-Presidents of the respective districts of such transfers, which shall not, however, alter the apportionment of any fees paid for the year current.

SEC. 2. Any officer or committeeman who shall be charged in writing by ten members with malfeasance in office or conduct prejudicial to the interests of the Federation may be suspended by the President pending investigation of such charges, a copy of which shall be forwarded to the alleged offender within ten days of its receipt. He shall be given twenty days in which to make answer. The evidence shall be submitted to the members of the Board of Directors. If found guilty, the offender may be reprimanded, removed from office or expelled from the organization.

SEC. 3. In the case of any member of the Federation, not holding office, against whom similar offenses are charged in writing by five members, the procedure shall be the same.

SEC. 4. Any member who may have been expelled may be re-elected to membership by a two-thirds vote of the members present and voting at a regular meeting; but no such application shall be considered within one year of the date of his expulsion and until it shall have been recommended by majority vote of the members present at a regular meeting of his district.

ARTICLE XI.

AMENDMENTS.

SECTION 1. These By-Laws may be altered or amended by a two-thirds vote of the members present at any regular meeting, or any special meeting called for the purpose. In cases of extreme necessity, as determined by a majority of the Board of Directors, a mail vote of the Assembly may be taken and a three-fourths vote of all votes cast will be required for adoption of proposed amendments.

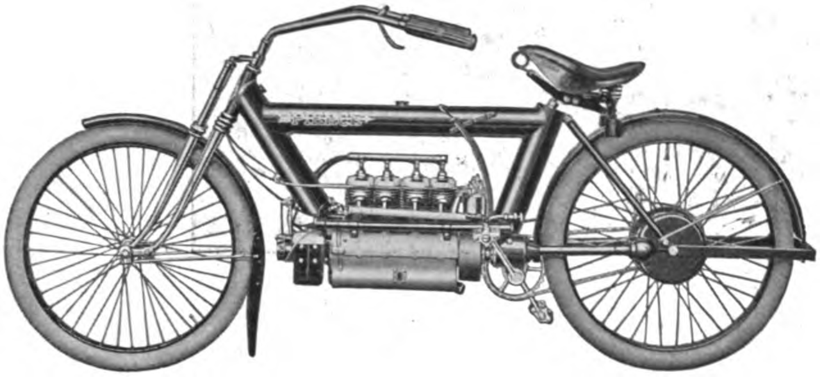
Notice of all proposed amendments shall be given thirty days in advance of such meeting, or of said mail vote.

Notice of proposed changes in the By-Laws published in recognized motorcycle journals shall be considered sufficient notice.

* *

The Motor Parts Company, of which Mr. R. E. Hardy is president, has moved from 309 Fisher Building, to 1735 Michigan avenue, Chicago. This company is selling agent for the Providence Engineering Works, manufacturers of engines, clutches, transmissions, rear axles, etc., for the National Porcelain Company, and other concerns.

PIERCE
Vibrationless
Motorcycle



TWO
SPEED

FREE
ENGINE

COMFORT POWER SPEED
1 2 3

Thousands of riders are clamoring for these 3 attributes in a Motorcycle

ARE YOU?

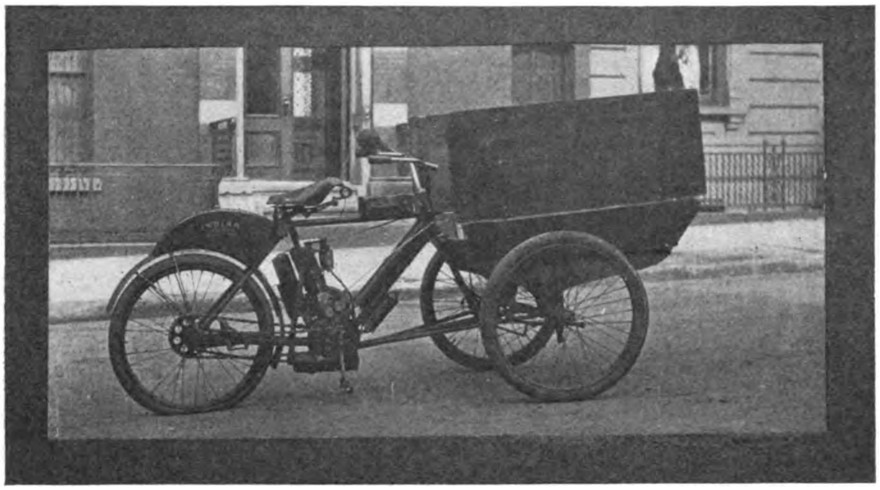
The Pierce Four Cylinder
AND
The Pierce Single Cylinder
HAVE THEM!

IT'S TIME TO INVESTIGATE

Our Catalogue gives complete description

THE PIERCE CYCLE COMPANY
BUFFALO, N. Y.
PACIFIC COAST BRANCH, OAKLAND, CAL.

BUTCHER MAKES USE OF DELIVERY VAN.



Often hearing the expression, "Oh, they will never be of any use except as pleasure vehicles," I wish to state that I know a number of business men who are using motorcycles for business purposes with great success.

I am enclosing herewith a photograph of a delivery van that has been in actual use since 1907. It is worth mentioning that it has run not only during the summer months, but all the year round, and up to the present time has given excellent service to the utmost satisfaction of its owner, J. M. Height, Jr., of the Amidon Market, Broadway and 83rd street, New York. J. Buckingham.

A PASADENA CHANGE.

The business of the Pasadena Sporting Goods Company at 115 North Fair Oaks avenue, Pasadena, Cal., has been taken over by the Thor Motorcycle Agency. In connection with the transfer of the agency the show rooms and repair shops have been removed one block east to more commodious premises at 105 North Raymond avenue.

The new manager, F. S. Hopping, comes to Pasadena with a large experience in the motor field, both at Los Angeles and other southern points. He is a thorough motorcycle specialist and in that capacity will be glad to welcome new customers and meet the wants of old Thor patrons in his repair department.

* *

AN IDEAL OUTING.

Enclosed you will find picture snapped while on my vacation. I took a ten days' trip through western Pennsylvania on my 3½ h. Wagner, and covered about 600 miles without any trouble whatsoever. The picture was taken just after an hour's fishing in French Creek.

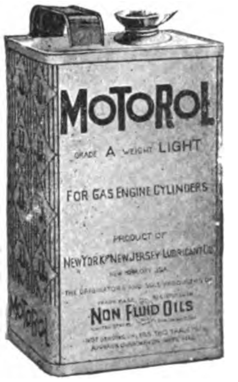
Cleveland is rapidly coming to the front in the motorcycle world, and I have been doing my share of the business in Wagners, of which I will have the agency in Cleveland in 1910.

Geo. B. Knapp.

Cleveland, O.

A GOOD LUBRICANT.

The New York & New Jersey Lubricant Company is doing well with its non-fluid oils, and cylinder oil, Motorol. Special grades of non-fluid oil are made for use in compression cups on all bearings, for packing, differentials, planetary transmissions, for steering gear knuckles, ball and roller bearings, axles, universal joints, sliding gear transmissions, timing gears, for use in grease cups on circulating pumps (this grade is waterproof) and for universal joints on shaft driven cars (very high melting point, for use where tallow greases run out).



The cylinder oil, Motorol, was produced only last year, owing to limited factory capacity and stress of business created by the demand for non-fluid oils. This oil, according to reports from those who have tested it out, accomplishes exceptional results in increasing power of engines, and lubricating without carbonizing. Being of unusual lubricating properties, Motorol may be used economically; it produces the desired results with a lower consumption of gasoline.

NON-FLUID OIL

A strong recommendation for these products lies in their adoption by over sixty manufacturers of automobiles.

BEDFORD CO. MOVES.

Brooklyn—The Bedford Motorcycle Company, operated by R. Brazenor and B. Ruderman, have moved from 849 Bedford avenue to 1041 Bedford avenue, near Greene avenue. Their business had gotten too large for the old place, hence the removal to new quarters. They now have four times the space they had, and have one of the best equipped motor repair shops in Greater New York. They will carry a complete line of Thor and Excelsior motorcycles, also a stock of the parts of almost every other make. Both partners are hustlers.

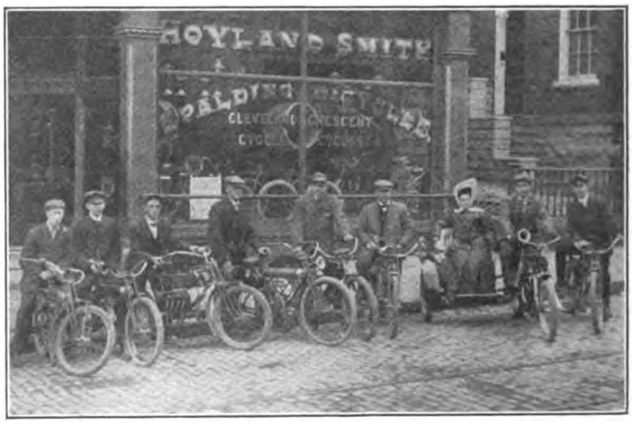
* *

Isaac G. Johnson & Co., of Spuyten Duyvil, New York City, have just issued a pamphlet in which they discuss the merit of cast malleable iron versus cast steel in automobile and motor manufacturing. This pamphlet might interest some of the motorcycle people. The firm mentioned will send the booklet to anyone on application.

* *

ONE OF THE FIRST.

This cut shows the store, on Union street, New Bedford, Mass., of Hoyland Smith, one of the Down Eastern trade pioneers, and a successful handler of the N. S. U., Indian, M. M. and other machines.



* *

The Apex Bicycle Company has contracted to handle the Yale in Portland, Ore.

In the interest of
economical up-keep expense specify

Morgan & Wright

White Tread

Motorcycle Tires

on your machine for the coming year.

Much more tread stock than you have been used to having on your tires—hence much more service.

Any manufacturer will be glad to equip them.

MORGAN & WRIGHT
DETROIT

Branches, Agencies or Dealers Everywhere

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When you strike rough road you feel the difference. Ask any rider the Facts about

MESINGER

"CAVALRY"

AND

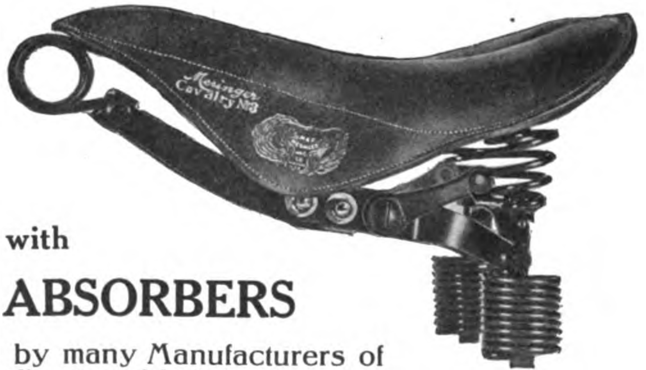
"STANDARD"

They are all fitted with

PATENTED SHOCK ABSORBERS

Built for COMFORT, tested and approved by many Manufacturers of Motorcycles. They save the rider from disagreeable jolts, prevent side-sway and add to the pleasure of motorcycling.

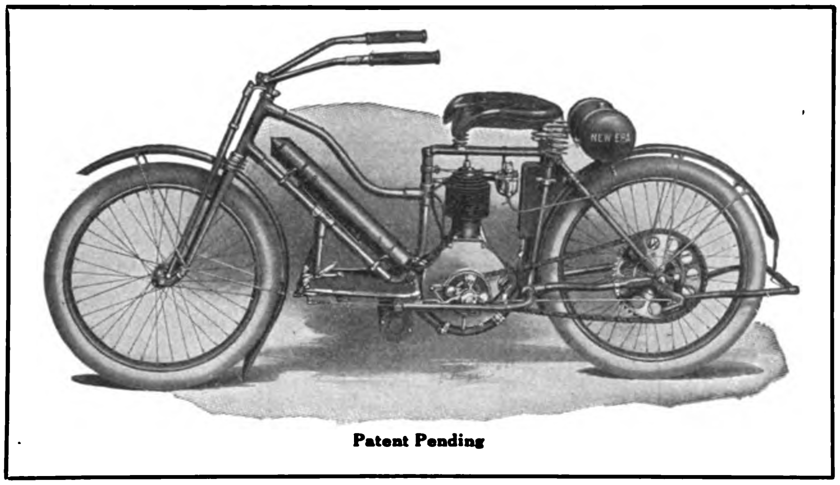
H. & F. MESINGER MFG. CO., 1801-1807 First Ave., NEW YORK



HAVE YOU NOTICED

How the Manufacturers of Motorcycles are tumbling over one another in their efforts to obtain Two Speed Gears and Free Motor devices? And do you know that it requires several years of experience to produce a practical and efficient two speed and free engine? If you don't you can easily make sure by buying a machine fitted with an untried two speed. But why pay so expensively for this knowledge when you can buy, as part of your

1910 New Era Auto-Cycle



Patent Pending

Two Speed Transmission and Free Motor, motor started by means of a crank, no pedals, comfortable, upholstered Form seat and foot board, excellence of design, beauty of workmanship, power and endurance. The machine for both country roads and crowded city streets.

LIVE AGENTS, HANDLE AN UP-TO-DATE AUTO-CYCLE. The Two Speed isn't Simply Coming—it's already here, and right Here, in the New Era Auto-Cycle. Others will follow in our footsteps, but, Mr. Dealer, Isn't it Better to Lead? If you think so, and if you are wise, that Is Your Opinion. You will write for an Advance Circular and our Agency Proposition.

The New Era Auto-Cycle Co., 22 Dale Avenue
Dayton, Ohio

LOS ANGELES TRACK IDEAL.

RALPH DE PALMA, the foremost American auto track driver, is glad he is back in the racing game. His next appearance after the New Orleans meet will be at the seven days' inaugural of the Los Angeles Motordrome, beginning April 8, and he is most enthusiastic over the new mile board track—the "great planked dish."

"I am convinced that the new board saucer will prove the best racing proposition yet tried," declared De Palma. "Driving on a track has always appealed to me more strongly than road racing, and a wooden dish with the dangers of skidding, blinding dust and thrown tires eliminated 'listens good,' as they say in The New Theatre drama.

"The course, being a perfect circle, one mile in circumference, rather than oval, I believe will be a decided advantage for making great speed. Cars can whirl at very nearly constant speed, having no bad turns to negotiate. Having raced motorcycles on the Springfield (Mass.) board track, which is only one-third the size of the Southern California one, has convinced me of this. Perhaps very few people have stopped to consider that on a mile banked track which is an absolute circle, pilots will be able to drive under conditions not greatly different from straightway going. Figuring it out mathematically, I believe you will find that a driver has to deviate from a straight line only one inch in every sixty-four feet. Inasmuch as the curve is constant and the steering wheel must be set to vary only slightly when passing other cars, a driver will be able to devote more attention to manipulation of his motor rather than to his steering the wheel.

"In my estimation, the twenty-degree banking on the new course will be sufficient to counteract centrifugal force, so that the little car can be let out to its capacity. It will surprise me greatly if cars show any tendency to skid on the board surface. The traction ought to be ideal."

The
American

¶Our agency proposition is the best of any.

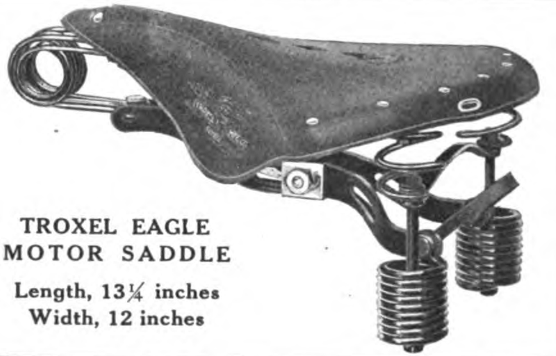
¶We give you a living discount.

¶We build both the Square Line frame and the Loop frame.

¶Write us today for the best Agency offer made by any manufacturer.

¶It is a winner. So are the AMERICAN machines. 1910 Models ready for delivery. 1910 catalogue now out; we will mail it on request. Write us on your business letter head.

American Motor Cycle Co.
1370 WELLS STREET CHICAGO, ILL.



TROXEL EAGLE
MOTOR SADDLE
Length, 13¼ inches
Width, 12 inches

Troxel Eagle Motor Saddles

WAY IN THE LEAD

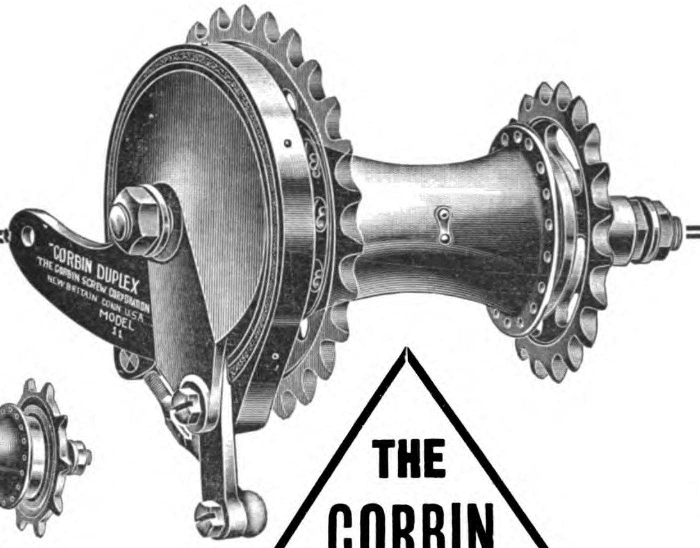
No mere accident this. It is workmanship, experience---"Know How" that makes

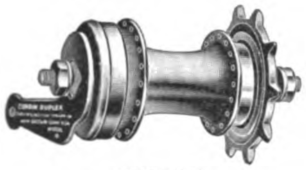
TROXEL SADDLES LEAD

We want you to know too all about that wood base MOTOR SADDLE we will have ready for delivery April 1st. It will be a sensation to the admirers of wood base motor saddles. It will have the name "TROXEL," which means *good stuff*. Catalog sent on request.

THE TROXEL MANUFACTURING CO., ELYRIA, OHIO

Kindly always mention the paper when writing to advertisers.

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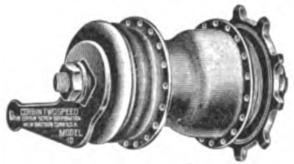

MODEL 10.

**THE
CORBIN
BAND BRAKE**

NOT AN EXPERIMENT BUT A PROVEN SUCCESS, THE

CORBIN

BAND BRAKE

For Belt or Chain Drive Motorcycles is Superior to All Others in

Principle, Strength and Reliability

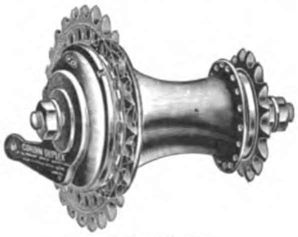
C-O-R-B-I-N Spells Both Quality and Workmanship

WAREHOUSES.

106, 108, 110 Lafayette Street, New York; Northwest Corner Eighth and Arch Streets, Philadelphia, Pa.

AGENTS AND RIDERS

Handle and Use a Brake Whose Success Has Been Demonstrated by Thousands. Quotations on Request.


MODEL 9.

THE CORBIN SCREW CORPORATION

LICENSED COASTER BRAKE MANUFACTURERS

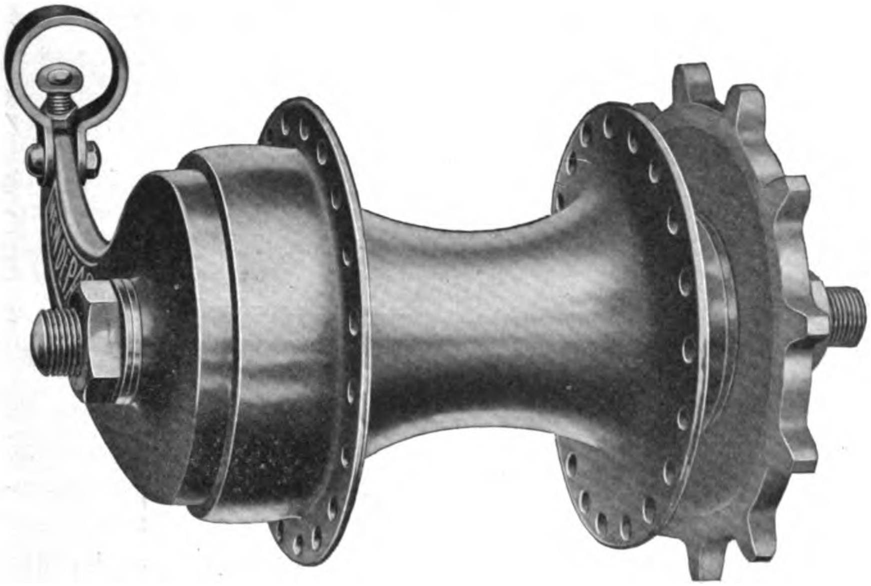
THE CORBIN SCREW CORPORATION OF CHICAGO, 107-109 Lake Street, Chicago, Ill. NEW BRITAIN, CONN., U.S.A.

WE PAUSE LONG ENOUGH TO REMEMBER THAT THE MOTORCYCLE INDUSTRY HAS LOST ONE OF ITS MOST LOYAL SUPPORTERS, AND MOTORCYCLISTS ONE OF THEIR BEST FRIENDS, BY THE RECENT DEMISE OF

Francis P. Prial

READING STANDARD CO.

READING, PENNA.

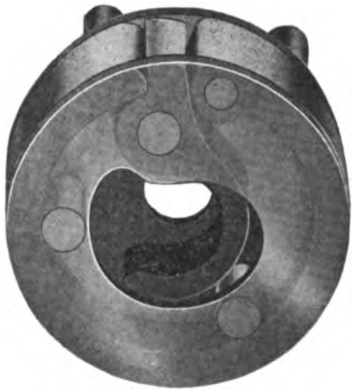


NEW NEW DEPARTURE

Internal Expanding Band Coaster Brake for Motorcycles is

Band Brake and Lever

POWERFUL
PRACTICAL
POSITIVE



Band Brake showing top plates holding parts in position—transparent view

The New Departure is the last word is coaster brakes for 1910 motorcycles. Radical improvements have been made, bringing it abreast of motorcycle advancement. It is dependable under all circumstances, strong enough to stall the highest powered motors; cannot bind, lock, "feed up" the pedals or cut into the hub. Every test proves claims made for it and every user declares its unfailing efficiency.

When asking your dealer about the "NEW" New Departure, do not fail to tell him you want to see the internal expanding band coaster brake.

Write for Folder

THE NEW DEPARTURE MFG. CO.

Coast Brake Licensors BRISTOL, CONN.

MART ADVERTISEMENTS

FOR SALE—1909, 3½ horsepower, V-belt Yale motorcycle; perfect condition guaranteed; new tires, odometer, lamp, horn, extras, $125. C. W. Bush, Caldwell, N. J.

MOTORCYCLE BARGAINS—Some good ones left, taken in exchange for new machines; will sell cheap. All double grip control and spring forks in A1 condition. Box No. 3, Readville, Mass.

FOR SALE—1908 M. M. twin; a dandy, double grip control; spring forks, largest Mesinger saddle, large pump, stand, luggage carrier. Large light front, generator, rear light, and horn. Price, $175. Box No. 3, Readville, Mass.

FOR SALE—At $75, single Indian; new bushings and rings; A1 condition. Also 5-h.p. twin (special), belt drive, a bargain at $90. Address J. C. Wirt, Smethport, Pa.

FOR SALE—Two-horsepower motorcycle, in fine shape, price, $45; must sell. Write for particulars. W. D. Armstrong, Custer, Okla.

FOR SALE—Complete set of patterns and castings for motorcycle engine of 45.94 cu. in. displacement; speed, 5,200 revolutions per minute. Cost of patterns, castings, and machine, $160. Price, $75, as must be sold at once. Reason for selling, enlisting in Navy. Address Maurice Goodwin, 1265 Leafland Ave., Decatur, Ill.

FOR SALE—1909 M. M. Battery Special. The whole machine, including finish, tires and engine, is in first class condition. Price, $135. C. A. Shaw, Groton, Mass.

REWARD $25 EACH—Stolen Oct. 26, two 1909 loop frame twin Indians. Red, 21A454. Green, 20A642. Pioneer Printing Co., 307 Howard street, Spokane, Wash.

FOR SALE—Several brand new Model "C" Thors, $180. Second-hand Pierce, $225; R-S, $75. Other bargains. T. E. Lindsay, Zanesville, O.

FOR SALE—Must sell a brand new M. M. Magneto Special for much less than wholesale price. Lock Box 11, North Woodstock, N. H.

WANTED—1909 motorcycle. State condition and price in first letter. Geo. Phillips, 47 Public Sqare, Lima, O.

FOR SALE—1907-08-09 R-S, Greyhound and Curtiss singles. Need money to buy 1910 stock machines. Correspondence solicited. James Finkle, Dalton, Mass.

FOR SALE—New 1909 twin-cylinder Indian, 5 h.p., chain drive, Bosch magneto, cyclometer, stand and tools; price, $210. F. C. Price, Box 237, Youngstown, Ohio.

FOR SALE—1907 M. M. 3½ Roadster. Overhauled and newly enameled. Fine condition. Bargain at $75. C. S. Teller, Girard, Pa.

SECOND HAND—One F. & N. 4-cylinder, cost $350; sell $150. One 3½-h.p. 1909 Indian, cost $225, sell at $165. One 5-h.p. 1908 Twin Indian, magneto, cost $275, sell $175. One 3½-h.p. Curtiss, cost $225, sell $110. One 1909 6-h.p. belt drive, magneto, Reading-Standard, cost $300, sell $200. All the above in good running order, tires and enamel in good condition. Gus Habich, 142 East Washington street, Indianapolis, Ind.

IF IT IS a second-hand machine you want, write to A. D. Cook, 111 Monroe avenue, Rochester, N. Y.; Curtiss Agency.

FOR SALE—1908 Indian 3½ h. p., new rear tire, never used. Engine just from factory, overhauled, with 1910 valve gear, never run; bargain at $125. First class condition. R. E. Wilder, 527 Thomas avenue, Johnstown, Pa.

FOR SALE—1909 3 h. p. R.-S., battery, belt; just overhauled. A1 condition. Leon E. Mansur, Westminster, Mass.

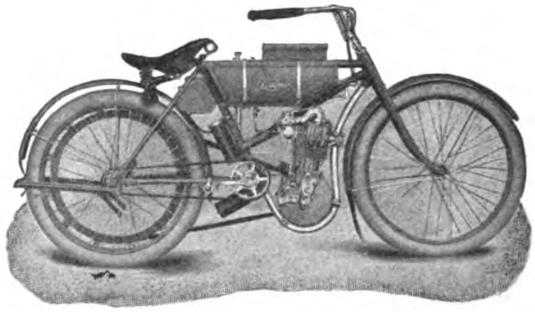
1909 WORLD'S RECORD IMPROVED Curtiss Single. Engine overhauled, runs like new. New Bailey tires, spring fork, tool bag with tools, extra nuts, valves, springs, spark plugs, etc., luggage carrier. Make an offer. Ralph Mount, Marion, Ohio.

Wagner
MOTOR CYCLES
Proven Quality

FOR 1910

Embody more exclusive and commendable features contributing to reliability and the comfort of the rider than may be found in any other Motorcycle on the market

Our Catalog Explains



FOUR MODELS
WAGNER MOTORCYCLE CO.
ST. PAUL

Distributors for the Southern States
SOUTHERN STATES MOTORCYCLE CO.
Atlanta, Ga.

The "STANDARD"
ONLY MOTORCYCLE SPEEDOMETER
WITH A STEADY HAND

The Police of several cities have replaced other speedometers with "STANDARDS," because "STANDARDS" remain accurate.

Special Fittings for every Spring Fork Machine.

Send at once for new catalogue.

Our New Models have Trip as well as Season Odometer without extra charge, and you have a choice of either 60 or 80 mile dials at the same price.

We can now furnish fittings for the following 1910 Spring Fork Machines:

Indian, Merkel, R.-S., Thor, Excelsior, Curtiss, Harley-Davidson, Yale, M. M., Marvel, Royal Pioneer, New Era, N. S. U., Greyhound, Pierce 5 and 7, Racycle, Emblem, Reliance, S. D. M.

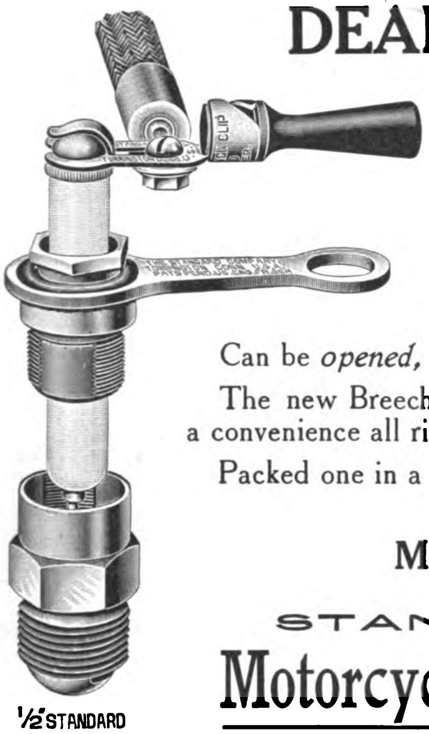
STANDARD THERMOMETER CO., 65 Shirley St., BOSTON, MASS.

20 25
TRIP
MILES PER HOUR
10 20 30 40 50 60
TOTAL
1 3 5 7 4
TENTHS
STANDARD
SPEEDOMETER
PARKER MFG. CO. BOSTON, U.S.A.
PAT. APPL'D. FOR

STANDARD-EQUIPMENT

FOR THE

MOTORCYCLE MANUFACTURER, DEALER AND RIDER



The Breech Block Plug

A COMBINATION

SPARKER PRIMER COMPRESSION RELIEF

One sixth turn *opens* or *closes.* The push of a *finger* locks tight to 2,000 pounds.

Can be *opened, cleaned* and *closed* in *four seconds.*

The new Breech Block Clip with Insulated Handle prevents shocks and is a convenience all riders will appreciate.

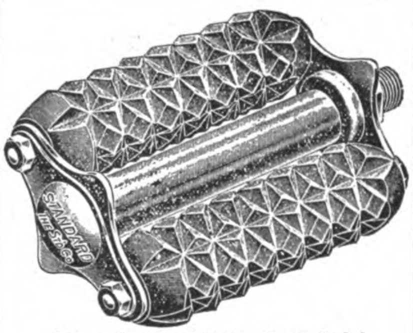
Packed one in a box with new clip-screw-nut and directions.

PRICE

Mica, $1.25 Porcelain, $1.00

We recommend mica plug for motorcycle use

STANDARD Motorcycle Pedals



No. 3, Standard Motor Cycle Pedal

Wide Tread Pedals combining *Comfort, Utility* and *Reliability.* Constructed of the *Best* materials by *Skilled Mechanics.*

PRICE, $3.00 PAIR

Emergency Axles, Sager Motorcycle Toe Clip, Diamond E <E> Spokes. Bridgeport, and Standard Pedals. Sager and Standard Toe Clips.

Send for our Descriptive Circulars

THE STANDARD COMPANY

Torrington, Conn., U. S. A.

Another YALE Achievement

EXPERT OPINIONS DISPROVED

¶ On January 24th, at 10 A. M., a 1910 Yale 3½ horsepower stock motorcycle was started in the window of the Oberwegner Motor Company's store, 139 Michigan Street, Toledo, Ohio, and ran continuously, not one stop, without fan or other cooling device, at an average speed of 1285 revolutions per minute, until stopped at 10 P. M., Saturday, January 29th, a period of 132 hours.

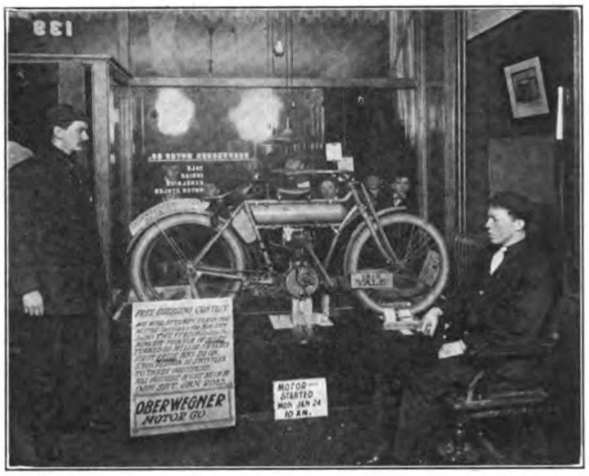
¶ Immediately after stopping the motor Mr. Oberwegner took it from the window and without making one adjustment or repair, rode it on the streets of Toledo for 25 minutes at speeds ranging from 5 to 35 miles per hour.

¶ He then brought the motorcycle in the store and with the aid of three experts examined same carefully and found it in perfect condition, motor free, compression and bearings perfect. Just as good or better than when started at 10 A. M., Monday, January the 24th.

¶ In a class by itself, the 1910 Yale motorcycle is the best proposition for both dealer and rider.

REMEMBER

The Yale holds the world's record for endurance and is operated at less upkeep expense than any motorcycle in the world.


139
OBERWEGNER MOTOR CO
MOTOR STARTED MON JAN 24 10 A.M.

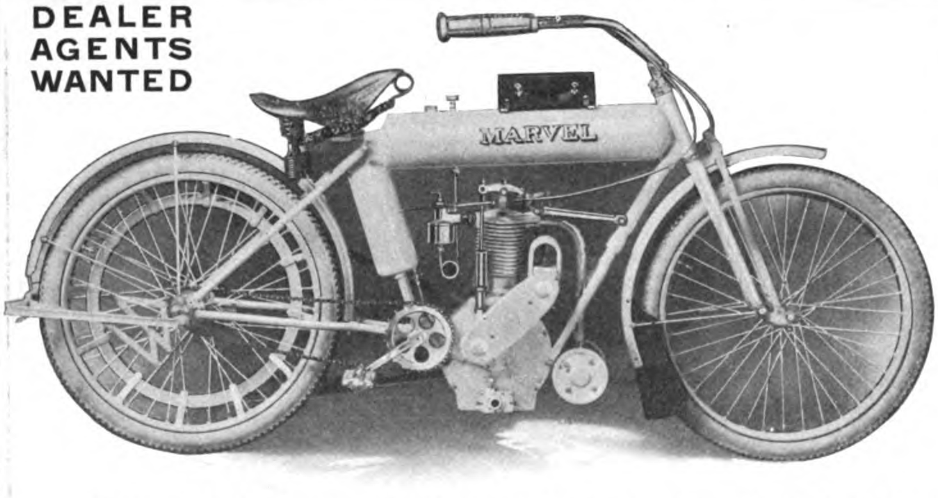
TEST IN PROGRESS.

Get our booklet "What is Reliability." *Ride a Yale—They never fail.*

THE CONSOLIDATED MANUFACTURING CO., 1730 Fernwood Ave., Toledo, O.

We also make Yale and Snell Bicycles, Hussey Handle Bars, Consolidated Package Cars and Drop Forgings of Every Description.

DEALER AGENTS WANTED



MARVEL Motorcycle

tank in the frame tubes,
Curtiss 4-5 h. p. motor,
and Bosch Magneto,

$225.00

Three of the leading motorcycle experts in America have designed the Marvel. By brake test the new Curtiss 4-5 h. p. mechanical valve single cylinder motor shows over one horsepower more than any previous motor of equal cylinder capacity. Offset cylinder; roller bearing; valves in the head; one-piece cylinder and head; one cam; 2½ gals. gasoline, 2½ qts. oil. Best fittings possible to buy.

Complete, the Marvel weighs 145 pounds. Motor, 40 pounds. Frame only, 28 pounds. Low frame, 19 inches; Marvel-Curtiss carburetor, automatic; adjustable grip control and 8-inch flexible grips; long V shape handle bars with drop ends; fuel and oil reservoirs contained in frame tubes; Adams stand; 1⅛ inch V belt transmission; automatic oiling; wheelbase 58 inches; finished in nickel and Marvel gray enamel.

The Best in the World at any Price

MARVEL MOTORCYCLE CO., Hammondsport, N. Y.

The THIEM

1910 MODEL "E"

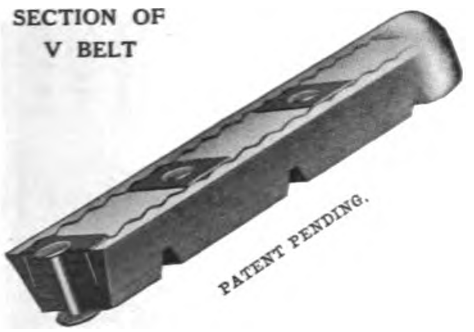
4 H.P. $3\frac{1}{4}$ x $3\frac{1}{2}$ Ball Bearing Motor

Many new and unique improvements. Model "E" represents a substantial advance in the Motorcycle Art. The evolution through which we have passed has emphasized features and improvements that are now embodied in our Model "E" that easily makes it the most improved Motorcycle made anywhere.

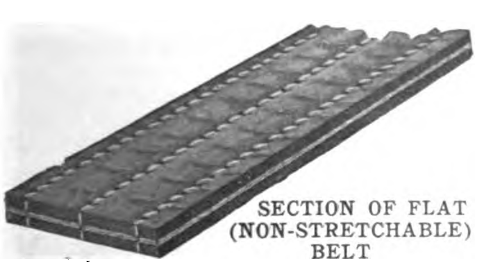
The Improvements are: **Full Ball Bearing, Mechanically Operated Valves, Precision Oiler in addition to Pump in Tank, Magneto gear driven, special Spring Fork, Low saddle position, means for adjusting the Belt, and many minor improvements.**

AGENTS WANTED EVERYWHERE.

THIEM MANF'G CO., Box 498, Minneapolis, Minn.



THE BEST
Motorcycle Belt



THE BEST MOTORCYCLE BELT

is one that will transmit the greatest percentage of power; that will not slip wet or dry; that is not affected by oil, grease, water, gas or climatic condition; and that will wear longer than any other belt.

These are nearly *ideal* conditions. Yet there is a belt that will meet *all* these requirements.

It is the

SHOEMAKER MOTORCYCLE BELT

"V" or "FLAT" SHAPE

These belts are made of a leather that is, from a new method of tanning used, peculiarly well adapted for the making of Motorcycle Belts, as it is the strongest, most pliable leather known, and is not affected by *any* of the adverse conditions to which motorcycle belts are constantly subjected. This leather, together with the unique design and the reinforcements used, results in the strongest and most satisfactory belt ever offered motorcycle users.

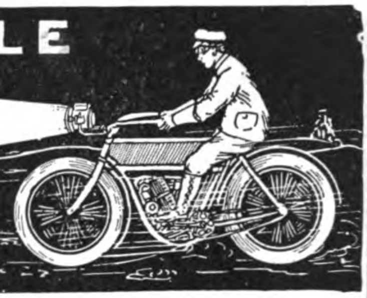
A booklet, fully describing the leather and showing how the belts are "built," will be sent on request.

Send for it today.

APEX BELTING CO.

242 CHESTNUT ST., PHILADELPHIA, PA., U. S. A.

THE 20th Century MOTORCYCLE HEAD and SEARCHLIGHTS



MR. MOTORCYCLE RIDER:

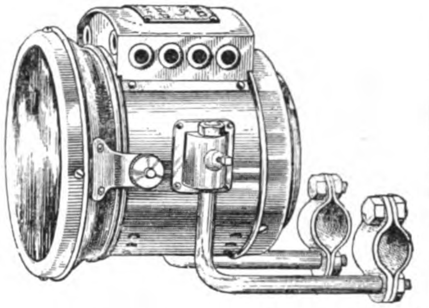
You want both the best looking and the best light giver when you buy your lamp. Not only style but service. In the 20th Century line

YOU SECURE THESE QUALITIES.

For your machine, no matter what make, specify 20th Century equipment. If you order Lamp No. 102 with Generator and Brackets complete you will find yourself in possession of a lighting plant that will turn darkness into daylight and will

FIT YOUR MACHINE

SEND FOR CATALOG



Lamp No. 102 with Brackets No. 14¾

20th Century Mf'g Co

19 Warren Street New York

1910 PITTSFIELD 1910

SPARK COILS, SPARK PLUGS, SWITCHES, TIMERS AND DISTRIBUTERS AND MAGNETOS

MADE IN AMERICA ***HAVE NO SUPERIOR IN THE MARKET***

Magneto Spark Plug.

The following testimonial was recently received by the Pittsfield Spark Coil Co., unsolicited.

"Columbus, Ohio, Oct. 11th, 1909.

"PITTSFIELD SPARK COIL CO.,
"Dalton, Mass.

"Gentlemen:—

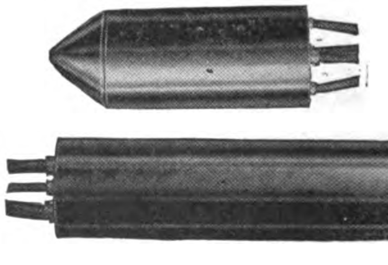
"I think you will be interested to know I am using the best coil "PITTSFIELD," on my run from San Francisco to New Orleans and New York.

"I have covered 5,763 miles, 2,022 on railroad cross ties, and have had a terrible trip. Have been out thirty-seven days and had no ignition trouble. Your coil has stood unreasonable endurance, exposed to water, heat and cold in many States.

"I am an old-time rider and one who knows a good thing.

"Yours truly.
(Signed) "H. F. MERIWEATHER."

A Line of Pittsfield Goods is carried by H. V. Greenwood, 166 Lake Street, Chicago

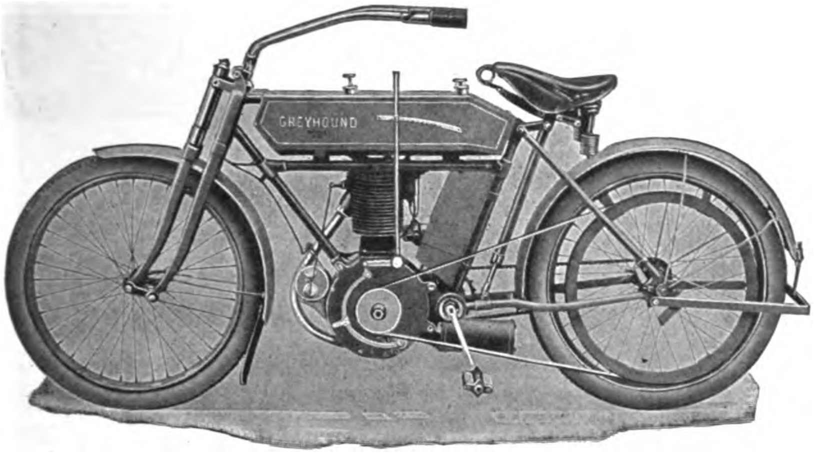


Write today for particulars, catalogues, price lists and instructions.

PITTSFIELD SPARK COIL CO., Flansbury Ave., Dalton, Mass.

Sales Representatives: New England, W. J. Connell, 36 Columbus Avenue, Boston. **Atlantic States,** Thomas J. Wetzel, 17 West 42nd Street, New York. **Central States,** K. Franklin Peterson, H. V. Greenwood, 166 Lake Street, Chicago **Michigan.** L. D. Bolton, 319 Hammond Building, Detroit. **Pacific Coast,** The Laugenour Co., San Francisco.

THE SPLENDID GREYHOUND



was again prominent at the Chicago Show, February 5th-12th. It is a thoroughbred in every respect and in addition to all the most popular features and highest grade characteristics it provides MORE SOLID COMFORT for the rider than any other motorcycle on earth! See the great

Greyhound Shock Absorber

and cushion fork.

We are glad to announce that "Whipple, The Motorcycle Man," 923 W. Jackson Blvd., Chicago, will distribute Greyhounds for Illinois, Wisconsin and Indiana, and is prepared to issue a live line of business talk to interested parties in said territory.

At Buffalo we are glad to hear from anybody about any motorcycle matter. Catalogs free for the asking.

GREYHOUND MOTOR WORKS

Member Motorcycle Manufacturers' Association

1459 Niagara St., Buffalo, N. Y.

SALES AGENTS: Metropolitan District—THE BROWN-DEWEY CO., 1697 Broadway, New York, N. Y.
Illinois, Wisconsin and Indiana—WHIPPLE, "The Motorcycle Man," 923 W. Jackson Blvd., Chicago, Ill.

G & J TIRES

Stick to Quality

¶ It doesn't pay to experiment with unreliable motorcycle tires even if they are cheaper. They are very apt to cause you to invest in a ride on the "Interurban"—You better put that money in the price of a pair of high grade tires and ride home on your motorcycle.

WRITE FOR A COPY OF OUR NEW BOOKLET

G & J TIRE COMPANY, Indianapolis, Ind.

Model 94 Solar Motorcycle Lamp

The Best Accident Insurance for Motorcyclist and Bicyclist

The new Solar Motorcycle lamp and generator. The crowning product of twelve years of successful experience.

Model 94R: with Red Rear Signal

The lamp is heavy brass, reinforced and riveted in assembling. Fitted with a removable 4-inch B & L Solar lens mirror reflector—the most powerful 4-inch mirror made.

Its great popularity is attested by its almost universal use.

Solar Motorcycle Generator

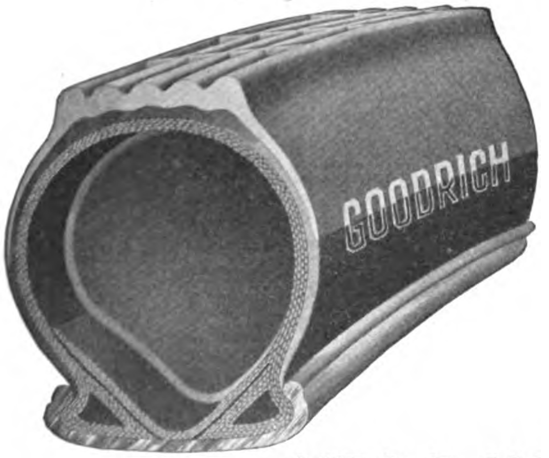
The generator is made of a seamless shell of heavy drawn brass. Has a greater carbide capacity than any generator on the market.

You can ride at night with safety and confidence if you're using Solars.

BADGER BRASS MFG. CO. **Kenosha, Wis. - New York City**

(46)

THE GOODRICH
WHITE HEAVY TREAD
Motorcycle Tire



¶ The Shape of the Tread *distributes wear evenly.* No single corrugation gets all the rub, leaving the part of the tread most used without a preventive of skidding.

¶ The Tread has a *third more rubber* than any other make.

¶ It has *resilience* and *elasticity.* "The ridges bite in grip the riding surface and *prevent skidding.*"

¶ *Four Plies of Fabric*—one more than any other make—guarantee durability.

¶ For Enduring Wear "The Goodrich White Heavy Tread Motorcycle Tire is a Motorcycle Tire built like an Automobile Tire."

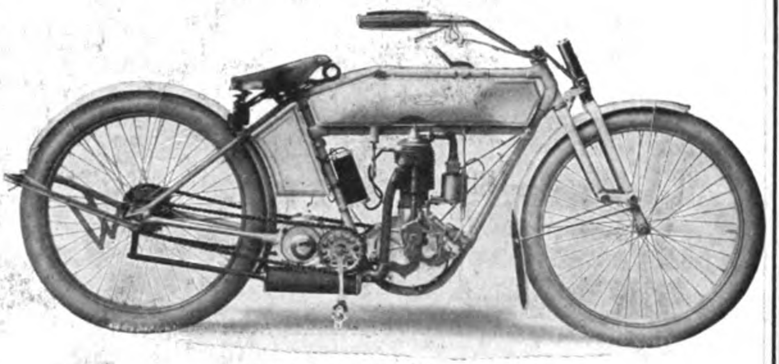
THE B. F. GOODRICH COMPANY, Akron, Ohio

The Minneapolis

They all go wild over the new

Minneapolis

That new independent clutch on the motor has made a double hit.



Model K. Big 4. *Thor Motor.*

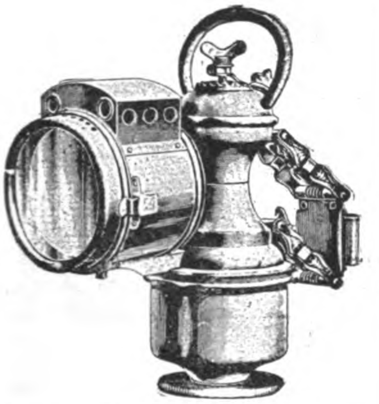
Attention Dealers. We have the two machines that the public wants: Our models "K" and "L". Write at once for agency proposition.

Minneapolis Motorcycle Co., 517 South 7th Street
Minneapolis, Minn., U.S.A.

Mr. Dealer! Our Goods Will Help To Increase Your Business

They will make friends for you. Motorcyclists who know that you handle our line will frequent your place to see the new goods. Weare the largest importers of motorcycle accessories in this country and the first to import new novelties. You have no idea how much difference our goods will make on your trade. Suppose you write for our trade discounts.

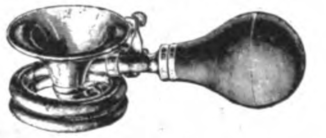
COMBINED LAMP AND GENERATOR



A combination of lamp and generator that is better than any ever devised for motorcycles. Lamp has a mangin mirror lens that projects a powerful light. Generator is very simple in operation. Complete outfit weighs only 23 ounces. Bracket on any motorcycle will fit it. Supplied in nickel only.

No. 88, Price, - - - - $5.00

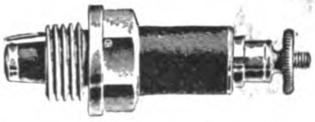
TRIPLE TWIST FROG HORN



Used mostly on motorcycles, runabouts, and on rear of tonneaus. Triple-twist construction produces a deep penetrating tone. Supplied in nickel or brass.

No. 10, Bell 3¼ Ins., Price, - $2.25
No. 11, Bell 4 Ins., Price, - 3.00

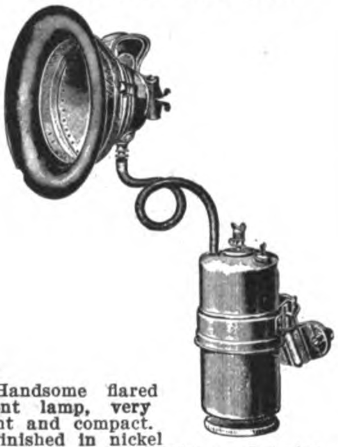
MICA MOTORCYCLE PLUG



Constructed from amber mica, with composition platinum points, ensuring positive spark.

No. 160, ½ inch and Metric, Price, 75c.

MOTORCYCLE LAMP SETS



Handsome flared front lamp, very light and compact. Finished in nickel and with nickel fittings. Interior of lamp highly polished, projecting a brilliant light. Generators are very simple in operation.

Set 55A and 55B Lamp 5 ins. diameter, 4½ ins. depth, and generator height 5½ ins., diameter 2½ ins.

Price, Complete, - - - $6.50

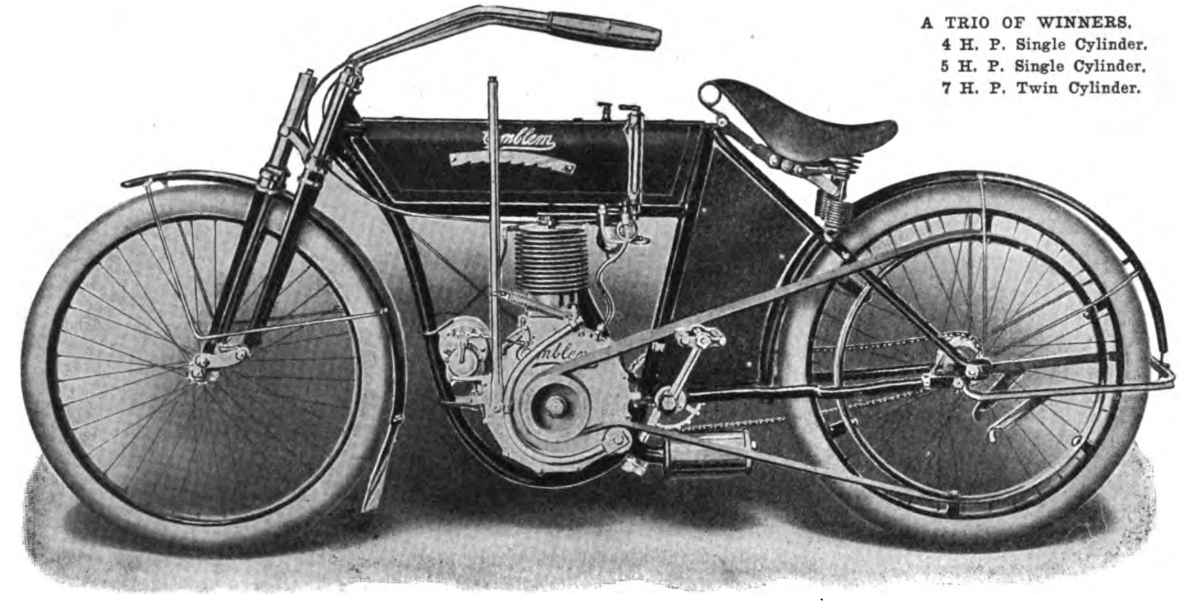
SEND FOR OUR NEW CATALOG AND TRADE LIST

THE MOTOR CAR EQUIPMENT CO., 55 Warren St., New York, N. Y. **Wholesalers, Importers and Manufacturers**

Class, Power, Speed and Satisfaction are the Appealing Features of the

1910 EMBLEM MOTORCYCLES

A TRIO OF WINNERS.
4 H. P. Single Cylinder.
5 H. P. Single Cylinder.
7 H. P. Twin Cylinder.



EMBLEM MANUFACTURING CO., Angola (Erie Co.), N. Y.

ALSO MANUFACTURERS OF THE EMBLEM BICYCLE.

DISTRIBUTORS.

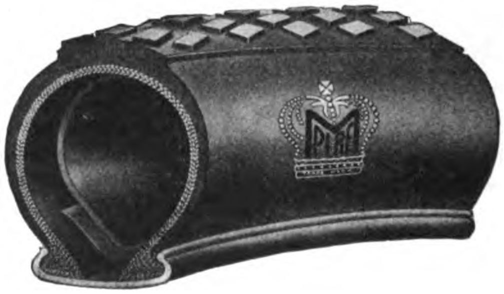
John T. Bill & Co., Los Angeles, for California Meredith Cycle Co., Salt Lake City, for Utah. Alexander-Sewald Co., Atlanta, Ga., for the South
F. M. Spinning, Seattle, for Washington. Ballou & Wright, Portland, for Oregon. Henry Keidel & Co., Balt., Md., for Va. & W. Va.

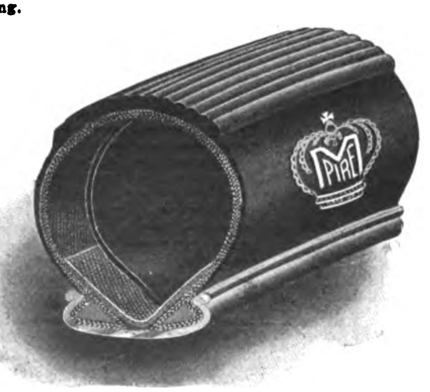
Empire Tires
WEAR LONGEST

Empire molded motorcycle tires are extra heavy and extra strong. They are made to give proper service on the heavier and faster motorcycles now being generally made. The best quality of Sea Island fabric is used—closely woven, of the same type as used in automobile tire construction. High class rubber is used throughout, which will give great wear and withstand great abuse.

CORRUGATED TREAD TIRE

This design will aid greatly in preventing side slipping, without detracting from the resilience or easy-riding quality of the tire in straight riding.





The Checkered Tread is the best non-skid tire ever offered for motorcyclists' use. It is very handsome in appearance. The rubber used in the tread is of a composition that gives the largest possible service. One of these tires ought to be on the rear of every motorcycle, the year around, as a guarantee against dangerous side slips.

EMPIRE TIRE COMPANY

TRENTON, N. J.

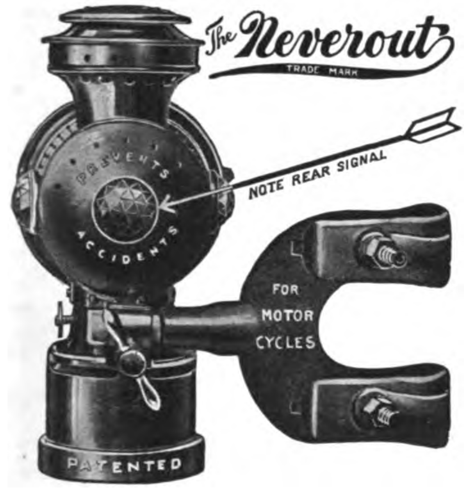
The Neverout
TRADE MARK

MOTORCYCLE OIL LAMP

SHOWING A RED REAR LIGHT

¶ The Neverout burns kerosene ten hours with one filling, and will stay lighted under any and all conditions. ¶ All riveted—will not rattle apart over roughest roads.
¶ Made in gun metal, brass or nickel finish

AN OIL LAMP THAT MAKES MORE LIGHT THAN MOST GAS LAMPS



Lamp Weighs Only 12½ Ounces

GUARANTEED TO STAY LIGHTED OR MONEY REFUNDED

¶ The Neverout is equipped with a PATENT GLASS COVERED REFLECTOR OF GERMAN SILVER, instantly removable, never loses its original brilliancy.
¶ The only perfect and reliable motorcycle lamp made.
¶ Double clamp bracket furnished, fastens lamp securely to fork of motorcycle. No danger of shaking off, and SHOWS RED REAR DANGER SIGNAL.

Sold by leading jobbers and dealers everywhere

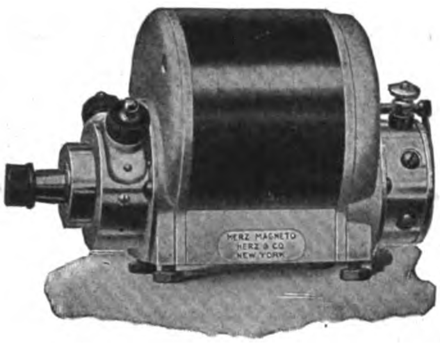
ROSE MANUFACTURING COMPANY
933 ARCH STREET, PHILADELPHIA, U. S. A.

The Neverout complies with the laws of the various States and Municipalities

What YOU Want

is a fat HOT ARC FLAME at the First ¼ Turn of the PEDAL and ever after; that's why YOU WILL INSIST upon the

HERZ-Magneto
ON YOUR MOTORCYCLE



Thousands of Testimonials from Delighted Users.

Mr. E. W. Riets says: "It's the best Magneto made. My machine will run just as slow as a battery machine and is a lot more reliable."

EQUIPMENT ON: EXCELSIOR, PIERCE, THOR, YALE, HARLEY-DAVIDSON, GREYHOUND, EMBLEM, WAGNER

"HERZ" Means Absolute Dependability

THE HERZ-PLUG

HERZ & CO.
NEW YORK

SPECIAL MAGNETO TYPE

"Bougie Mercedes"
is the famous
STONE PLUG
On the market for the last 15 years.
WE GUARANTEE THE HERZ PLUG FOR ONE ENTIRE YEAR to be *absolutely proof against oil or soot; not to carbonize and not to break* it's indestructible *STONE.*
Price $1.50, postpaid.
At all good dealers.

IT MEANS A GREAT SAVING TO YOU

HERZ & CO., 295 Lafayette St.
NEW YORK

Mr. Dealer!

Have you heard that the

1910

RACYCLE

Agency Proposition is a Clean-Cut Money-Maker?

WE HAVE THE MACHINE

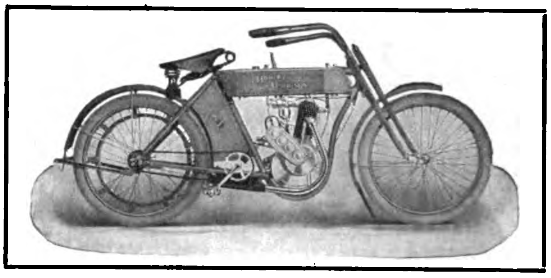
and You the Facilities to Sell It. Let Us Get Together. Write Today for Particulars.

MIAMI CYCLE & MFG. CO.

MIDDLETOWN, OHIO

WHEN YOU PURCHASE A

HARLEY-DAVIDSON



YOU KNOW THAT YOU ARE GETTING A MACHINE THAT HAS NOT ONE UNTRIED FEATURE IN ITS ENTIRE MAKEUP

HAVE YOU INVESTIGATED THE 1910 MODELS?

Harley-Davidson Motor Co.

Milwaukee, Wis.

WHAT YOU ARE LOOKING FOR

S. D. 1910 MOTORCYCLES

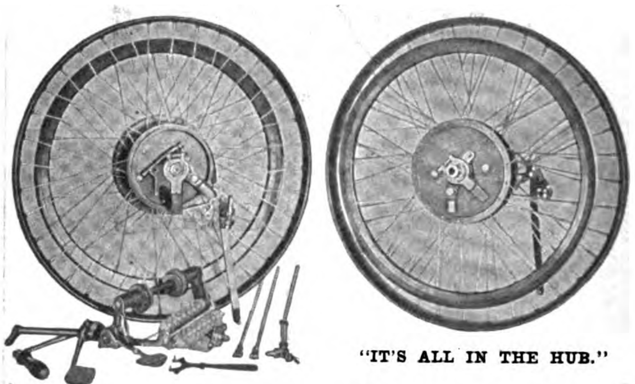
Patents Applied For

The Safest and Surest method of transmission has been applied to this beautifully designed **Motorcycle,** constructed to serve the utmost demands of each and every **Motorcyclist.**

Write for our circular matter that fully explains our **Shaft-Drive** system, and the many other commendable features of our **models.**

S. D. MANUFACTURING CO.

155 Ridgewood Ave. **Brooklyn, N. Y.**



"IT'S ALL IN THE HUB."

Convert Your Motorcycle

Illustration to the left shows **CLUTCH SIDE** of the **"K & R" TWO-SPEED AND FREE ENGINE** road wheel, together with foot levers, rods and all small parts complete as it is shipped to customer for attaching.

Illustration to the right shows **GEAR SIDE** of wheel.

These **CONVERSION SETS** furnished for **ANY** of the **V OR FLAT BELT** machines and easily attached by any repairman. Does **NOT** alter the **LINES** of your frame in any way, adds less than 10 lbs. weight and gives you the advantage of **HAND STARTING, FREE ENGINE, TWO-SPEED, FRICTION CLUTCH FOR STARTING ON ANY UP-GRADE** and traversing **CONGESTED** or **SLIPPERY PAVED STREETS** with **ABSOLUTE SAFETY.**

All contained in the **REAR HUB,** where there is **AMPLE ROOM** for good **SUBSTANTIAL** working parts.

IMPOSSIBLE to strip gears in speed changing, will last the life of **ANY** motorcycle and **GUARANTEED** to stand the strain of **LARGEST TWIN ENGINES.**

Send for our Conversion Set catalog.

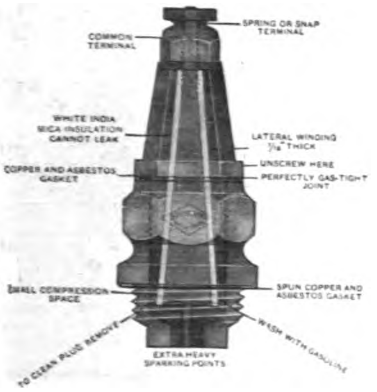
KELLER & RISQUE MOTOR CO., St. Paul, Minn.

Many Plugs, But Only One

SPLITDORF

Motorcycle Plug

WILL OUTLAST YOUR MOTOR


COMMON TERMINAL
SPRING OR SNAP TERMINAL
WHITE INDIA MICA INSULATION CANNOT LEAK
LATERAL WINDING 1/16" THICK
COPPER AND ASBESTOS GASKET
UNSCREW HERE
PERFECTLY GAS-TIGHT JOINT
SMALL COMPRESSION SPACE
SPUN COPPER AND ASBESTOS GASKET
TO CLEAN PLUG REMOVE
WASH WITH GASOLINE
EXTRA HEAVY SPARKING POINTS

Made expressly for Motorcycle use, and its superiority so clearly recognized that it is used by 75 per cent. of the leading makers.

C. F. SPLITDORF

Walton Ave. and 138th St.
Branch, 1679 Broadway
New York

$450,000

BOSCH

Magnetos

Manufactured and Sold

This clearly shows that Bosch Magnetos are rightly called,

"The World's Standard Ignition"

Let Us Send You a Free Copy of The Bosch News

BOSCH MAGNETO COMPANY

223-225 West 46th St., New York

Chicago Branch: 1253 Michigan Ave.
San Francisco Branch: 357 Van Ness Ave.
Detroit Branch Opens in February

SHAKES

After—not during your ride is the only time for a Shaker.

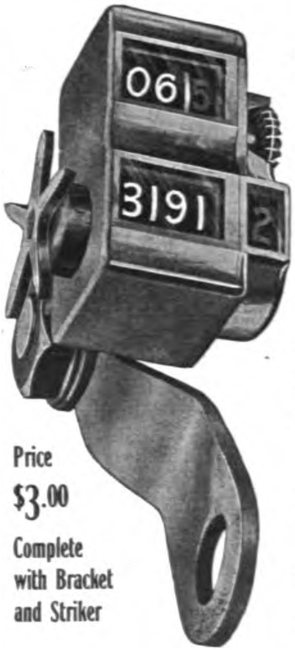
Don't ride a Shaker and get your backbone jarred loose from its moorings.

THE FLYING MERKEL

With its spring frame and fork smooths the "shakes" out of the roughest road.

Get our new catalog. It will waken your motorcycle sensibilities. Ask us about our agency proposition.

Merkel-Light Motor Co.
POTTSTOWN, PENNSYLVANIA
MEMBERS OF M.M.A.



Price
$3.00
Complete with Bracket and Striker

Veeder

Motorcycle Trip Cyclometer

Made heavy and durable for the hard usage it receives on the Motorcycle.

Adjustable Bracket fits all makes of machines.

Large and strong striker.

Made for 24 in., 26 in. and 28 in. wheels.

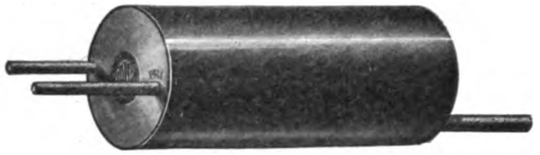
The Veeder Mfg. Co.

42 Sargeant St., Hartford, Conn.

Makers of Cyclometers, Odometers, Counters, Tachometers, Tachodometers and Die Castings

PFANSTIEHL COILS

FOR MOTORCYCLES ARE GUARANTEED FOR FIVE YEARS



The Famous Pfanstiehl Pancake system of winding, combined with a perfect balance of parts, and high grade construtcion, assures you of INDESTRUCTIBILITY, UNIFORMITY, RELIABILITY, and a strictly high grade coil at a reasonable price.

Constructed for use in connection with either 2 or 3 dry cells. Balanced to meet special requirements.

The New Pfanstiehl Motorcycle Magneto

FILLS A LONG FELT WANT

Strong and substantial in construction, though neat and compact in appearance.

Constructed by Pfanstiehl patented methods and covered by Pfanstiehl broad guarantees.

Not an experiment, but something a little more advanced than anything you have yet seen.

Don't fail to test this machine before closing contracts. Our prices will command your immediate attention and interest.

Pfanstiehl Electrical Laboratory
NORTH CHICAGO, ILL.

$1.00 **$1.25**

U.S.&FOREIGN
Reliance
PAT'S PENDING

Reliance
Spark Plugs
SPARK IN WATER

Reliance
MAGNETO
PAT'S PEND
PLATINUM-IRIDIUM ELECTRODE

THE PLUGS OF OUR MANUFACTURE ARE THE GREATEST VALUE IN SPARK PLUGS EVER PRODUCED — ONLY THE BEST OF MATERIAL USED.

Reliance Regular — Known and purchased everywhere— the **spark in water** feature made it famous. Slight changes have been made, but the original principle still remains untouched. Our output is enormous—it enables us to sell the best manufactured plug at the price of the ordinary—$1.00. Ask your dealer or send direct.

Reliance Magneto—Made for those who desire a magneto plug constructed on Reliance principles. Workmanship and material used consistent with that used in all the plugs of our manufacture. This plug is recommended where an excessive amount of oil is used. Ask your dealer, he sells it for $1.25; or send direct.

JEFFERY-DEWITT CO.

Spark Plug Manufacturers, 230 High St., Newark, N. J.

S. & F. Stephenson, Agents for United Kingdom, 19 Canning Place, Liverpool, Eng.
Armand Frey & Co., Agents for Continental Europe, Berlin, Germany.

Prest-O-Lite Gas Tank

As Necessary on Motorcycles As on Automobiles

A poor light is both a nuisance and a standing invitation to danger, accident and expense.

Prest-O-Lite gives steady, strong and reliable illumination. The only really economical system.

Prest-O-Lite Tank (Motorcycle Size), 12 inches long; 4 inches diameter. Weight, 7 lbs. Holds 10 ft. of gas—40 to 60 hours of light. This size is also used on automobiles, as a reserve supply.

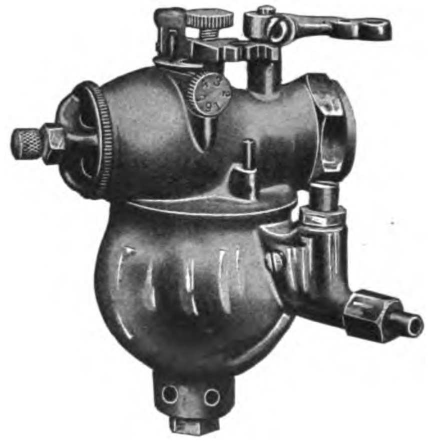
PRICE $10. **Full tank in exchange for empty** **60c.**

The Prest-O-Lite Co. **246 E. South St**
Indianapolis, Ind.

Branches at New York, Boston, Philadelphia, Cleveland, Chicago, Detroit, Providence (R. I.), Minneapolis, Omaha, Dallas, Los Angeles and San Francisco

4000 EXCHANGE AGENTS

Heitger Model F
1910 Motorcycle Carbureter



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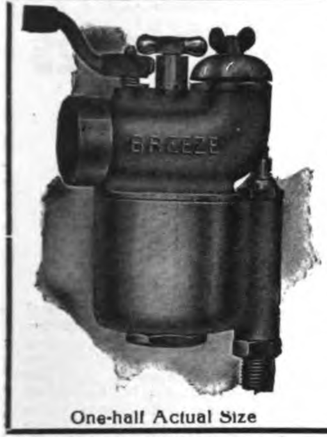
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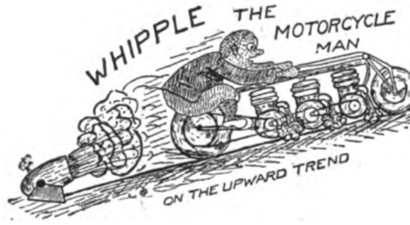

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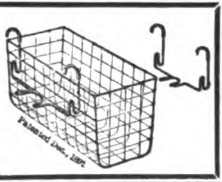

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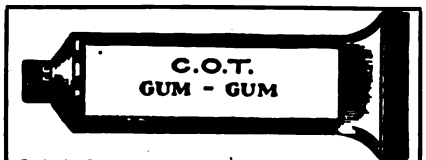

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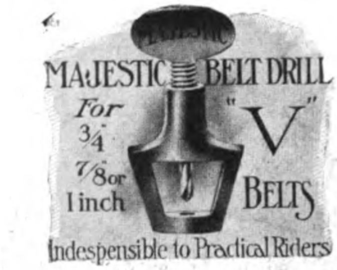

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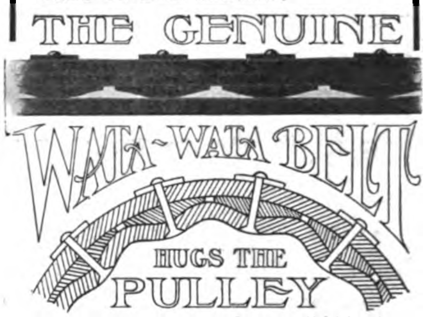

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MOTORCYCLE ILLUSTRATED

Vol. V. No. 5. March 1, 1910

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WHAT NEW ENGLAND OFFERS TO THE TRADE

Prospects in the Down-Eastern Tier of States Are By No Means Brilliant, Though a Steady Improvement is Indicated.

NEW YORK, Chicago and then the Hub. The motor show order is so logical that we cannot very well conceive of its being changed. Still, there is no better third than Boston. There are other cities in which more business could probably be done, and yet one instinctively feels that with Gotham's big introductory in January, Chicago's resounding note the following month, March would not be March without Boston's stamp of approval upon the progress of American motordom. Even though it be admitted that the New England show experiences of the trade have not always been satisfying, the passage of a year without a show in Boston would be almost as serious as a temporary extinguishment of the Hub itself. Again, particularly concerning the current year, we do not hesitate to predict that the folks who people the six States to the North and East of the Hudson are about to demonstrate that, *motorically* speaking, they must be seriously considered. We venture to add that the doubters are to be surprised by the interest these people are soon to evince in motorcycling.

In anticipation of arguments to prove the contrary, we admit that this is by no means the first prognostication of a motorcycling awakening in the New England States. As yet none of these predictions has been borne out by the facts. But this time we have fine-tooth-combed the field and find promising conditions prevailing practically everywhere. The change is probably to be attributed more than to anything else to a difference in the dealers' attitude—nor is this symptom of improvement confined to Way Down East. The trade has been built largely upon the broken hopes of erstwhile bicycle dealers, and it is because this is more true of the Northeastern part of the country than anywhere else that progress has been rather slow there.

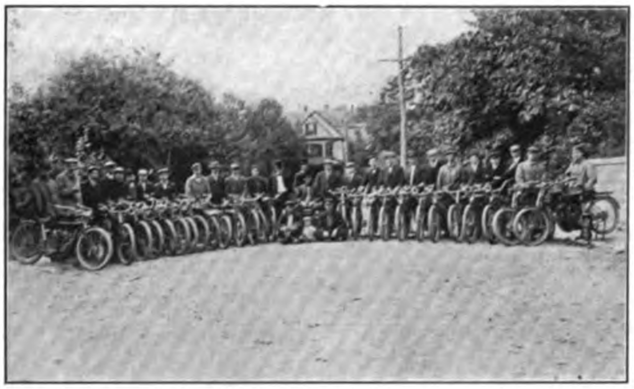
But not only has the trade been inoculated with much new blood, in addition the old-timers have overcome most of their former timidity and satisfied themselves that they need not fear a repetition of their oft unfortunate experiences following the collapse of the bicycle boom. We regard this as one of the most encouraging signs of the times, and one which will have a greater bearing upon developments in New England than anywhere else in the country. This field is in any event a rather unpromising one for the exploitation of luxuries, and the indifference and lethargy of the retail trade had an especially demoralizing effect upon previous efforts to popularize the motorcycle there.

The average New Englander is thrifty and conservative withal. He possesses more of the "show me" spirit than the proverbially Thomasic Missourian. But once convinced of the merits of a novelty, and once separated from the price thereof, the denizens of the New England States become staunch and consistent supporters of that which they originally disparaged because of its untriedness or its cost, or both. The people who are said to look to Boston as the center of the universe are ready at last and, with the dealers prepared to meet them more than half way, there is no reason in the world to assume that the year 1910 will not witness a material increase in the amount of business transacted and in the number of motorcycle riders in New England.

This territory is gridironed by one of the finest systems of roads in the country, the accommodations along which are uniformly good. The climate, while not Californian, permits of riding during seven or eight months a year, and the scenery is quite attractive enough to interest the nature-lover. Hundreds of tours, from one day to a week in duration, may be made from almost every place on the New England map; in fact, every condition is present to contribute all that is required to make motorcycling just what it ought to be, the most exhilarating and one of the most healthful sports in the long list of outdoor recreations.

There is probably good reason to consider New England as the logical center of American motorcycling for the year 1910. It appears to be the opinion of many riders in Boston and others who are familiar with conditions that the national convention and national race meetings will take place at Springfield, Mass., and as this is growing stronger, and there will not be serious opposition—if any at all is developed—then it may be believed there is strong probability of the chief events of the sport taking place in these States. The fastest track of its kind in the world is located at Springfield and with brief practise it will be possible for the riders to make very low marks, and there is no danger despite the speed that may be attained. The meet can be conducted in a manner that will bring to it some of the best known men riding and there should be for such events large fields of entrants.

With the national meet and convention seemingly a strong probability there is all the more reason for club enthusiasm. Not only this; there is a probability of the Eastern District organization making endeavor to promote a field day or



A Group of Torrington Club Members.

gathering at some conveniently located place where there will be other sports and amusements beside the racing features, and it is desired that this, if determined on, shall have interest for the ladies. There will also be numerous club events. The Springfield Club has a 500-miles contest promoted and other organizations are to compete.

With the majority of the riders, however, it appears that the chief concern is the pleasure to be obtained by the individual, and it is to meet this demand that the discerning officers of some of the clubs are planning the activities of the season so far as this may be done with a view of informing the riders in what manner they will benefit through membership. Not only is the matter of riding regarded, but club quarters and the usual features of club life have come in for careful consideration and it is believed that it is possible for the members to receive substantial returns for reasonable dues, with as much additional as they are willing to provide.

One of the features of the gathering of the riders at the Boston motor car exhibition is the exchange of information by the representatives of the clubs and discussion of events in prospect that these may be adopted as far as possible for the purpose of interesting the members of other clubs as well as enthusing the unattached motorists. With an outline of the pleasure of the season, and with sufficient opportunity to meet any demand, if occasion should arise for any specific action, there should be more concerted endeavor and decidedly better results.

There are to be more machines ridden in New England than ever before, and there will be a far greater degree of enthusiasm than in any previous year, and while there will be need of much endeavor to crystalize the desires and intentions of the riders there is no reason to doubt the ultimate result. The main purpose at present is to launch the means of bringing the motorists together, and this will be done in connection with the Boston meeting.

IN MASSACHUSETTS, CONNECTICUT AND RHODE ISLAND

BOSTON.—"From present indications," writes E. H. Corson, Thor agent here, "there will be a healthy development of interest in the New England States, especially in Massachusetts, this year. It has progressed slowly and has been a long, hard pull for us pioneers. I have been working hard for the past eight years and, of course, am glad to see signs of real growth. I am considering taking a party of motorcyclists through Europe the latter part of the season in connection with the old Elwell tour and would be glad to hear from all who would like to go. I will give such full particulars."

* *

PITTSFIELD, "The Heart of the Berkshires," is fast becoming a motorcycle paradise. The roads are magnificent, though not of the monotonously straight sort. Instead, they offer unlimited opportunities for viewing beautiful scenery and the enjoyment of hill-climbing feats which are not so hazardous as to discourage anyone with the slightest amount of gumption. Alfred T. Mason informs us that the speed limits in this part of the country are more or less of a dead letter, provided the riders show a decent regard for other users of the roads. If they fail to do this and become entirely too reckless, they are promptly arrested and fined.

The State road to Albany, fourteen miles long, has recently been completed and it is glorious going all the way. There is another road to Springfield now in the making, nor is it necessary any more to have to climb Jacob's Ladder, around the foot of which another fine State road has been built. The road to the top of Greylock, the highest peak in the Bay State, is now quite ridable by a motorcyclist, provided one uses a twin or at least a very husky single and is prepared to do a little extra work.

* *

LEON E. MANSUR reports no remarkable prospects in Westminster, Mass., where he handles the R-S. In a motorcycling way his part of the country is rather quiet, despite the fact that the roads are good, the scenery inviting and other conditions attractive. A little more cultivation should make this a good field.

* *

WORCESTER.—From the standpoint of motorcycling, this is one of the liveliest towns in the Bay State. It boasts of a most progressive club with ideal quarters on the banks of Lake Quinsigamond. There are four agents, as follows: Ira C. Coombs, Merkel-Light; R. MacDonald, M. M.; Geo. F. Clark, Indian and Pierce, and the J. W. Grady & Co., New England distributers for the Royal Pioneer. All of these dealers look forward with much confidence to the prospect of doubling the number of riders during this season.

* *

DALTON.—"Here in the Berkshire Hills," writes J. A. Finkle, R-S agent, "we have Mount Greylock, the highest in the State, with an altitude of 3,535 feet. In 1908 two 3 R-S motorcycles carried their riders to the summit over a road, built by the State, of crushed stone and gravel. As far as I can learn, these are the only machines to have ever made the ascent." Finkle is the only dealer in Dalton, though in the near-by town of Pittsfield, J. M. Durkee sells the Indian, J. S. Taylor the Curtiss, and Clarence Wagner the M. M.

* *

WALTHAM.—H. W. Robinson, agent for the Indian and the Yale, with headquarters at 8 Crescent street, writes that it is as yet too early to get a line on the season's prospects in that part of the country. Mr. Robinson attended the show at Keene and will also go to the Boston show. The Waltham Motorcycle Club is planning to hold a big run to Keene on Decoration Day, when the Walthamites will be entertained by the progressive Consolidated Motorcyclists of the New Hampshire town.

* *

MIDDLEBORO.—"Motorcycling has not been popular here in the past," according to C. A. Sherman, Thor agent, "but business is looking up some. The public is beginning to appreciate the possibilities of the little machines for both business and pleasure." The Middleboro agents, besides Mr Sherman, are W. H. Ladbury, who handles the Indian, and B. E. Chapman, M. M. representative.

* *

HARTFORD.—Finch & Hayes, Merkel-Light agents at 1157 Main street, believe that "this will be the greatest year that Hartford has ever had in a motorcycle way. All the agents report unexpected orders for so early in the season. Especially is this true with us, as we have already taken orders for ten doubles and two single cylinder Merkels. The riders are so much more enthusiastic than they have ever been before, and have gotten together and secured a very fine club room on Main street, which they are now fitting up. The club, which has become affiliated with the F. A. M., proposes to keep things humming throughout the season. Our club secretary, George W. Baker, who is also the F. A. M. State commissioner, has worked very hard to secure rooms and make the club one of the liveliest in the East."

* *

WATERBURY.—L. A. T. Peterson, president of the Waterbury Club, writes that although only three or four machines were used for pleasure purposes in this city last year, his sales thus far in 1910 lead him to believe that the number will be increased to forty or fifty in the course of another twelve months. Mr. Peterson, who is agent for the R-S and the only dealer in the town, has been appointed local F. A. M. commissioner for his district. He was instrumental in organizing the Waterbury Club and is trying to have it affiliated with the federation. The officers of the organization, besides President Peterson, are E. R. Parks, vice-president; Ward A. Baldwin, secretary; H. W. Tripp, treasurer; C. H. Reynolds, captain; R. E. Watrous, first lieutenant, and W. J. Andrew, second lieutenant.

* *

NEW BRITAIN.—We are informed that the sport does not attract as many as it ought to of the residents of this city. No particular reason is given by our correspondents who are agreed, however, that motorcycling is all but dead in New Britain. This should not be the case, as the cities in the neighborhood boast of quite some interest in proportion to their respective sizes. New Britain should get in line and it ought to prove an excellent field for live and progressive agents.

* *

PROVIDENCE.—"The outlook is fine," writes the veteran B. A. Swenson, F. A. M. Commissioner for Rhode Island. "I have been busy all winter and have kept myself and three men going all the time. Before writing this I counted the machines in my store and repair shop and found that there were sixty-two in all. The Providence Club is rapidly increasing its membership and otherwise making excellent progress. In reference to F. A. M. conditions in this part of the country, I am prepared to predict that in the course of a month or so the membership will have doubled in this State, as compared with the figures of last October." The Providence agents, besides Swenson, who handles the Indian, are as follows: Chas. Walmsley, R.-S.; J. M. Boudreau, Merkel; Hiram Baxter, M. M.; Nisbet Laftes, Harley-Davidson; Providence Motorcycle Company, F. N. C. J. Swenson, of Newport, represents the Excelsior for the State of Rhode Island.

* *

NEWPORT.—Thomas C. Riley believes that the dealers in motorcycles in this city have every reason to feel jubilant over the prospects of a banner season for 1910. One very encouraging sign is the fact that the motorcycle is being utilized considerably in commercial lines, and the general satisfaction that the handy little machine is giving is prompting a large number of inquiries from people who heretofore have been inclined to doubt its serviceability.

"I have put three motorcycles in the hands of riders that have an average mileage of forty per day, and they have proven that they are capable of doing the work at much less expense than any other method of transportation, when the time saved is considered. These demonstrations, together with the fine roads we have in this section, are bound to bring credit to the little brother of the automobile, and the dealers here will, I believe, make a larger number of sales in 1910 than in any previous year." Newport has four dealers, their names and the machines they sell being as follows: Wm. Maher, Farewell street, Thor; J. R. Chase, Bellevue avenue, Indian; C. J. Swenson, Bellevue avenue, Excelsior; T. C. Riley, Thames street, Reading Standard. There are about 60 riders in the city, but there seems to be a lack of cooperation, therefore there is no club in the town. Almost all of the touring is done either individually or in groups of two or three. A club is badly needed.

* *

BENNINGTON.—According to DeWitt E. Lewis, M. M. agent, he inoculated the folks here with the motorcycle germ last season. There are still a good many promising young men who haven't as yet caught the "disease." Lewis, the only agent in southeastern Vermont, expects to bring the Bennington quota of riders up from ten to thirty before the end of the year.

* *

PORTLAND.—The office of the Secretary of State of Maine has prepared cards under the motor law passed by the Legislature of 1905. The following are the questions asked on the card for application for registration of a motorcycle: Name of owner, residence, name of maker, number of machine, motive power, predominating color, is the machine provided with an adequate brake, lights and suitable bell or horn, or other means of signaling?

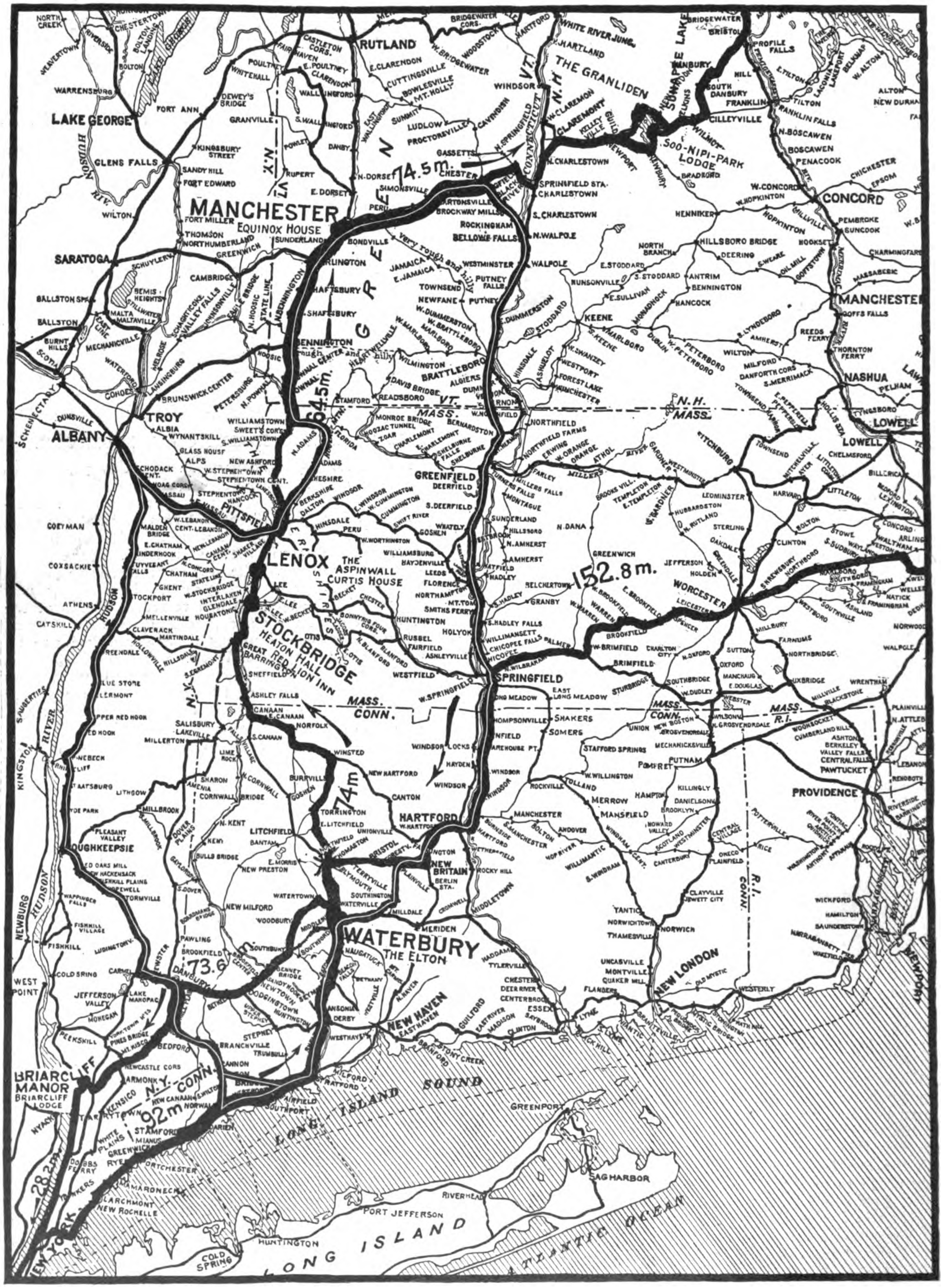
* *

THE "FATTER" SPARK OF A MAGNETO.

A. J. COLMEY, Canandaigua, N. Y.—A magneto gives more power than a battery ignited machine because the former gives a hotter or more intense spark. Electricians call this a "fatter" spark. This spark at the plug, being more intense, makes for a more complete combustion of the compressed gas in the cylinder, so that the engine develops greater power. The spark is retarded to prevent knocking and to prevent the charge from being pre-ignited; that is, the spark, when retarded, occurs at the right moment or at the correct time in the piston stroke. It is when the engine is overheated or overworked, as on a hill, that, when the speed falls off, if the spark were left advanced, the piston-motion would be arrested by the firing of the charge, and thus forced back in spite of the slower speed. This causes the knock in the engine and bearings, and if allowed to continue, is harmful to both.

* *

THIS old "boat" dates from the year 1900. It was the first machine to be ridden in New Haven. The photo from which this cut is made was sent in by J. N. Boyce, of the Standard Garage, 915 State street, New Haven. It is interesting to compare this motor-affixed bicycle with the handsome, powerful and easy-going motorcycles of 1910. Boyce, who is agent for the R-S, informs us that much of the success in building up the New Haven Club, which has big plans for the 1910 season, is due to the efforts of Ed. Brereton, former president of the organization, also to President Hinman, Secretary Sloan, Captain Hulse, Vice-President Hoey and Messrs. A. George, A. Werle, M. Maley, H. Jarmie, L. Cohen, M. Scobie and a number of others.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NASHUA
LOWELL
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VT.
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N.Y.
R.I.
HUDSON RIVER
CONNECTICUT RIVER
Very rough and hilly

Baldwin's Tour to the Hills of Vermont Is Indicated by Black Line with White Centre.

A TRIP INTO THE HILLS OF VERMONT

By WARD A. BALDWIN.

AFTER my new machine had arrived and I had learned some of its mysteries and had taken a few exhilarating spins, it became my ambition to make a long trip or tour. I went to a friend, Ralph Watrous, who had been a rider for a year and was now breaking in a new mount. I found the same desire to be uppermost in his heart. As we are both employed in offices, we had a vacation coming, and obtained permission to take it during the last week of July, which we thought would be a pleasant time for riding.

Our route caused quite a little discussion, but we finally decided to start off in a northerly direction without any definite goal, and ride just where and when our fancy took us. Saturday afternoon was devoted to a general cleaning up so that on Monday morning we started out in fine fettle. We wore our ordinary clothes, covered by long linen dusters tucked into our leggings, while our light baggage was carried on stands on the rear of the machines. We had such faith in our motorcycles—Watrous had an R. S. battery single and I an M. M. magneto single—that we took no spare parts. And, by the way, our faith was justified by their performances.

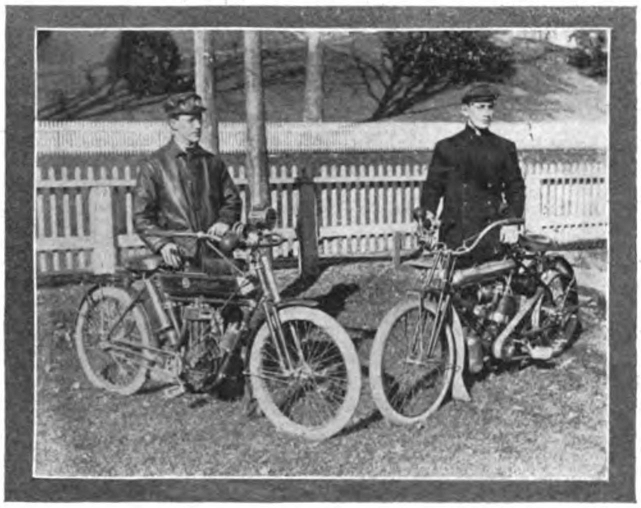
Leaving Thomaston, Conn., our home town, we had to go up Plymouth hill, which is about half a mile long and is a terror. My machine bucked here, as the valve which controls the flow of the gasoline into the carbureter became stuck, but Watrous went up by helping his mount with some brisk pedaling. We had ridden about two miles when my friend signalled for a stop. He found that the nut holding the carbureter was coming apart in a place where it had cracked open and been brazed. This necessitated a hunt for a garage and an hour's delay. Our route then was over fine roads to Hartford, where we crossed the Connecticut River and went up along the east bank to Springfield. Here we stopped for dinner and a rest with a relative whom Mr. Watrous had informed of our coming.

We continued on through historical Dearfield to Greenfield, where we put up for the night. The machines were kept in the wine cellar of the hotel, but evidently they remained strictly temperate. The next day we went as far as Bellow Falls before stopping for dinner. After a short rest we started for Chester. We were now getting into the hills of Vermont. While the roads were not very good the country was certainly beautiful.

After replenishing our supply of gasoline at Chester, we turned west on the route along which we were informed it was the best to cross the mountains. This part of the country was certainly not made for motorcycles. it being all up and down hill, the roads narrow and either sandy or cut up by teams into deep ruts. After several hours of hard work in the hot sun we thought it advisable and also a novelty to stay over night at some farm house. My friend made inquiries in the vicinity while I rested. But he could find no one who was willing to take us in. It was dusk when we "moved on" and just at night rode up to the hotel at Londonderry. The machines were put in the barn and after we had removed part of the road from our persons we sat down to a fine supper. You can imagine how we enjoyed sitting on the veranda that evening watching the moon rise, while we discussed our adventures of the last two days and planned for the remainder of our vacation.

They informed us here that the hills we had climbed were nothing in comparison with those ahead, so we spent the greater part of Wednesday morning in cleaning and adjusting our machines. I found that the spray nozzle of my carbureter was nearly clogged up with road dust, which accounted for its poor running the previous afternoon. About 11 o'clock we started again. For twelve miles we climbed hill after hill to the top of Mt. Peru. Our single cylinders, acting as though gifted with life, bounded forward to meet and vanquish each one we encountered.

From Mt. Peru we descended into Manchester. On the way down the mountains we passed through a toll gate where, however, no charge was made, motorcycles not being listed. as only two had ever been along that way before. At Manchester, which is a very pretty city and a popular summer resort, we procured gasoline and then started southward. For a little way the roads were very good, but when we reached Arlington we struck several miles of trying sand. A bothersome skip had developed in the battery machine, but unable to find anything wrong, we continued along to Bennington, where we arrived in the middle of the afternoon. Here we all "tanked up"—riders as well as machines—and then we looked the town over. As we were informed that it was only twenty miles to Pittsfield we decided to push on that far before putting up for the night. It turned out to be forty instead of twenty and as we got off the straight route and went through N. Adams, we did not reach Pittsfield until 8:30.



Baldwin and His Fellow-Rider.

The next morning we made a short run over to Albany. On our way we stopped on a busy street to inquire about a hotel and garage and were immediately surrounded by twelve or fifteen young men who began to inquire about different makes of motorcycles and showed considerably more enthusiasm than we had noted anywhere else. After getting located we went through the Capitol, looked about the town, and in the evening took a steamboat ride on the river.

In the morning we examined our mounts and my friend, who was still behind with a skip, tested his batteries and decided to put in new ones, after which we started for Poughkeepsie. At Hudson a stop was made for dinner

The Connecticut River, Near Brattleboro.

and gasoline, but it was only a short time before we were speeding along the State road again. About the middle of the afternoon the oilways of my motor seemed clogged and it began to overheat. After allowing it to stand and cool a while, I ran a quantity of gasoline through the engine, and then after oiling we proceeded to Poughkeepsie without further incident. Saturday morning we started on the last leg of our trip. The roads were not marked and we lost our way several times. However, we went along nicely until we came to a railroad crossing where the planks were laid on top of the ground. Here my companion experienced a broken chain. Within five minutes a force of men were improving the crossing. This struck us as funny, but did not help us out of our trouble. Our chain repairs made, we decided to hurry into Danbury for something to eat. We had proceeded about one hundred feet when the chain driving my magneto broke. But I hitched my mount to the other machine and we "got there" all right. Here we parted, as my friend intended to stay over Sunday in New Rochelle. The roads were reported very poor on the direct route, so I went round by way of Bridgeport and found the going very good, especially from that city up through the valley. I reached home without any further trouble, after having covered about 500 miles. Neither of us had had a puncture. The cost of our vacation was about $20 each, that amount covering all expenses, including the cost of the gasoline and oil in our tanks at the start. It was one of the most enjoyable vacations we had ever spent. We had been in the pure, fresh air all day long and right out in the country, where we could see and enjoy the beauties of nature.

THE ENGLISH BADLY BEATEN AT THEIR OWN GAME

NO longer does your self-contained Briton take pains to disparage the product of American motorcycling skill and thoroughness. The recent A. C. U. Quarterly Trials gave the Indian band on the other side its second apportunity to "show 'em," and this time the representatives of Uncle Sam, of whom there were four, demonstrated to the satisfaction of even the most skeptical native that we are making real motorcycle thoroughbreds. In sum and substance, the Indian got away with first honors, a percentage of 93½, as against the 92⅘ of its nearest competitor, the Premier. The much-vaunted Triumph, with seven entries, averaged 89½ per cent. Here are the figures for each machine represented:

Name of Machine.	Number of machines entered.	Total marks received.	Maximum number of marks.	Percentage.
Indian	4	748	800	93.5
Premier	3	557	600	92.8
Clyno	1	183	200	91.5
Excelsior (English)	2	363	400	90.7
Triumph	7	1,254	1,400	89.5
Douglas	8	1,413	1,600	88.8
Rex	2	350	400	87.5
Wanderer	2	349	400	87.2
Norton	1	168	200	84.
Scott	3	434	600	72.3
P. & M.	4	577	800	72.1
Moto-Reve	4	519	800	64.8
N. S. U.	3	373	600	62.2
Bradbury	2	215	400	54.

The event was run off on Saturday under the worst possible conditions. It had rained all day previous and frozen during the night. The result was that the men started out on roads which in places were covered with ice or a mass of frozen ruts. The four Indians all got through successfully without a stop, with the exception of Bowen, who ran into a non-competitor who fell in front of him. He smashed his front footrests and strained his chain so that it broke shortly afterwards.

The rules provided that the competitors had to ride without stopping except at the foot of the two test hills—Dashwood and Rectory—at a pace not exceeding 20 miles and not below 15 miles per hour. Penalties were incurred for stops, adjustments or failure to climb the hills without pedaling. Marks were awarded as follows: Dashwood hill, 10 points; Rectory hill, 10 points; ease of starting, 5 points; muffler, 10 points; brakes, 15 points; stand and carrier, 10 points; cleanliness, 20 points; general excellence of design, 20 points; reliability, 100 points. Total number of maximum points, 200.

WASHINGTON (D. C.) now has a Sportsmen's Association, the organization of which was recently effected by the election of the following officers: Clarence Turner, chairman; H. F. Seamark, treasurer, and Geo. F. Appleby, secretary. The association will conduct a show and motorcycles will be featured, in the 15th street armory, during the week beginning April 11. The association will also conduct a series of competitive events, among them a reliability run.

* *

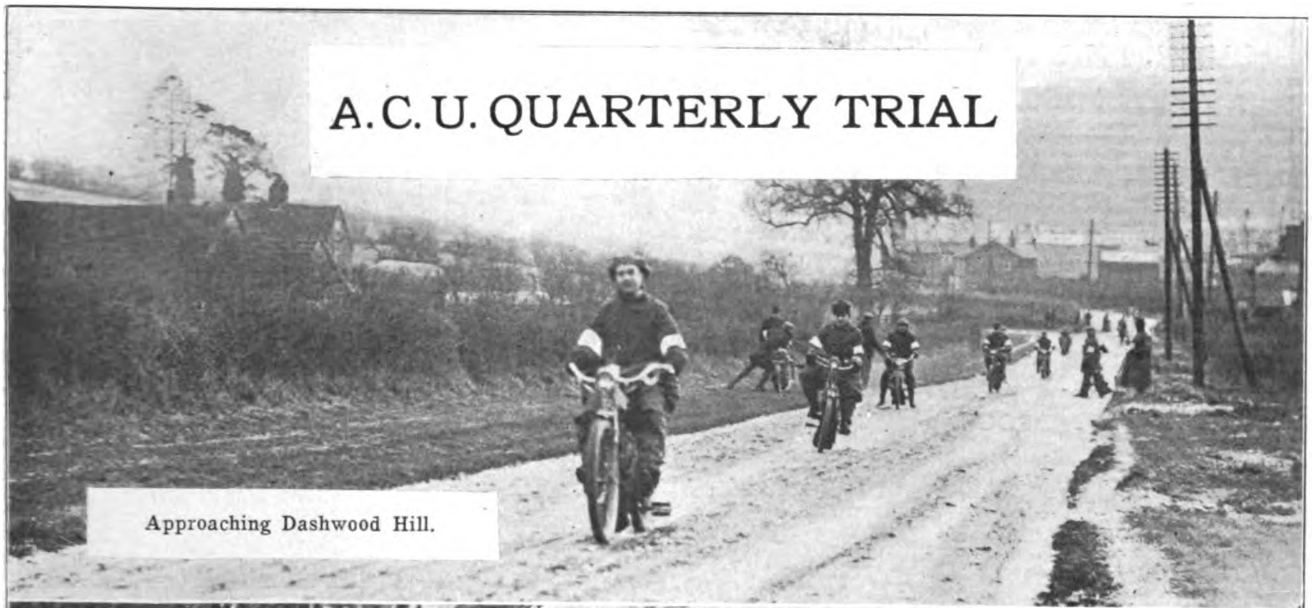
FREDERICK VAN PRAAG, connected with the Bureau of Lands in Bulachan Province, P. I., supplements a recent report from our far Eastern dependencies with the information that the Indian and F. N. are at the present time the most popular machines on the islands. Among others which are ridden there are the Merkel, Yale, Pierce and Humber. Van Praag is confident that the number of riders in the Philippines will be at least doubled during 1910.

WILL you please tell me how to tell which cylinder is skipping on a four-cylinder machine with magneto? Where can I get a large motorcycle pump? Will a 2½-inch tire go on a 2¼-inch rim and will it go on an Indian machine? THOS. E. WHEELWRIGHT.

Frankfort, Me.

Short circuit two cylinders at a time, and you will easily find which cylinder is faulty. Try 1 and 2, 2 and 3, 3 and 4, first of all, and you will find the way is simple. You can disconnect the secondary wire, to do this, after starting up on the the stand, or you can "short" the plugs. You will probably find that in a faulty cylinder the plug is sooted or defective, either in adjustment or condition. Any good accessory house stocks large pumps. We do not think that a 2½-inch tire would stay and give good results on a 2¼-inch rim. It will just fit, but you had better write a tire ompany.

A.C.U. QUARTERLY TRIAL



Approaching Dashwood Hill.

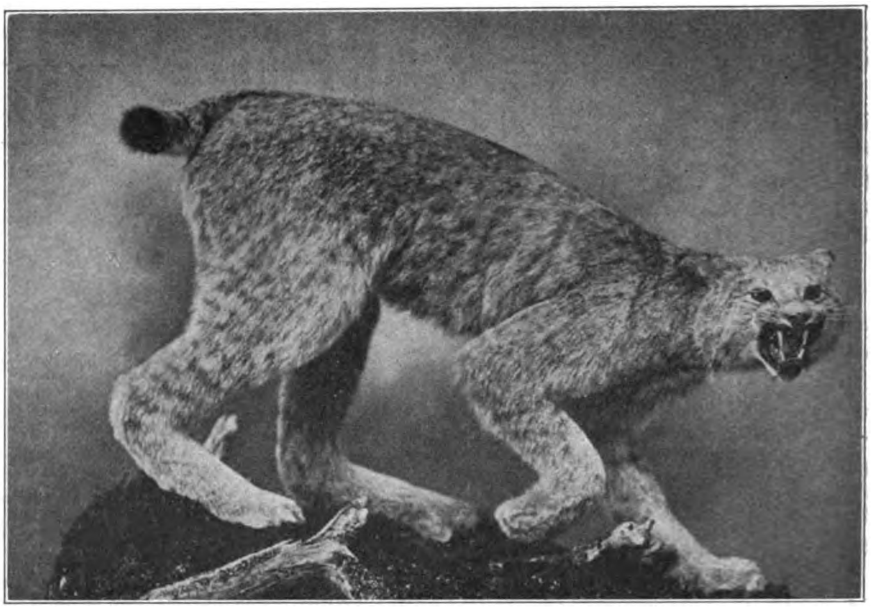
Harder Than Saddle Work.

Through Ice and Water.

OVER THE ICE AFTER A LYNX

An Exciting Adventure on a Pond in Maine—Skillful Manouvering of Machines—Hardy Sportsmen on Motorcycles and in Ice Boats Finally Run Down Their Quarry.

By. E. M. ESTABROOK.



HIND'S POND is a beautiful sheet of deep, clear spring-water, nestling among high, wooded hills that ascend from it's shore in precipitous banks for two-thirds of it's circumference. Both large and small game abound in the adjoining forest, while its clear, pure water reveals the presence of thousands of gamey trout, salmon and perch. Situated a few leagues from Bangor, it is the Mecca of motorcyclists and bicyclists, and during the summer their camps and bungalows occupy conspicuous positions on the many points and promontories, thereby enhancing the picturesque beauty of the natural surroundings. Many speedy motor boats have their animated "brushes" on this enchanted lake during the summer, while in winter ice-boating is enjoyed.

It was on November 21st of last year that my friend Allie Washburn, who owns a bungalow and ice boat at the above named pond, decided that conditions were right for some rare sport on the pond, and bade me gather the clans. The frozen ruts on the highway were worn down smooth, assuring a dustless and speedy surface, and as the competitive spirit always runs high among our coterie, I advised the splitting up of the party into two sections, sending the single cylinder class away about twenty minutes in advance. This was accordingly done. My companions were Geo. A. Sprague, Maine Committee, F. A. M Highway Improvement; Allie Washburn, Ralph Bicknell and William Webber, all on twin cylinder machines and bound to make the going fast. Through the cities of Bangor and Brewer we threaded our way and, reaching South Brewer, took the road to the country and the distant hills. I delegated myself to lead the procession if possible, and presently it looked as though I should have a busy few minutes. First one and then another made charge after charge, in their attempts to lead the way, and on the narrow road, with its many windings, where the view was cut off by trees, and where the meeting or passing of a team might mean the wrecking of the whole bunch—so close were we together—we fought it out tooth and nail with a desperation born of excitement and recklessness. My speedometer showed varying speeds from 34 to 50 M. P. H. when the indicator hand butted the top pin. Still I was not happy. I could not make the desired gain. Having an '08 machine, I was obliged to sacrifice my lead in order to oil, which necessitated a full stop. I soon sighted the quarry with Spragie in the vanguard, and worked up to him on the inside of a long curve. This evidently excited him somewhat and in his endeavor to hold the lead he rode himself off his feet, so to speak, as he was unable to hold the turn and, taking the gutter and intervening space like a thoroughbred, he dashed through a board fence and covered some 200 feet of frozen ploughed land before stopping. A bent front fork and a good shaking up was the only penalty he paid, however.

Arriving at Freese's landing we trundled our machines out upon the ice, noting at the same time that surface conditions were such that straight-away riding was perfectly feasible and safe. We chatted with mine host Freese awhile, when presently our ears were assailed by a series of most unearthly whoops, loud shouting, with a jumble of orders, screeching and laughter mixed, all emenating from a point to the right and about a half mile distant. Was there a tragedy taking place just around the point? The bedlam of exciting shouts and screeches increased as the parties neared the point which veiled them from our view. "D—n it, Estabrook, someone is being killed," said Spragie, his face showing his excitement. "All bosh, Spragie, you've had a fall back-a-ways and you are nervous." Presently from around the point there darted first one, two, and then two more iceboats, all acting in the craziest manner conceivable, but evidently being handled with consummate skill. The shouting and excitement aboard the boats seemed unabated, while with the greatest rapidity they darted hither and thither, turning skillfully and avoiding collisions.

Presently it was seen that there was some large animal, a very agile one, in their midst; but, that no one boat seemed desirous of actually running him down, thereby taking him aboard as a passenger. Instead they were keeping him off the headlands and islands and having some rare sport. After looking through his binoculars, Mr. Freese announced that the animal was a fine specimen of Canadian lynx.

We hastily formed a plan of attack whereby, with a sort of a "U" formation, we proceeded to surround his lynxship and run him straight down the lake for about three miles. Washburn who, aside from being a very cool man under trying circumstances, was also a very fine pistol shot, was selected to stop up the lower end of the "U", and as soon as we got our game trapped, he was to advance and do the killing. Spragie and myself occupied the advanced position on the end of the "U" formation. Our first dash, so far as the formation was concerned, was successful, but on account of the iceboats crossing frequently in front of us, Washburn would not take the chance of shooting and presently our formation tactics were broken up by the cat slipping through the side line. I am sorry to acknowledge that not all (if any) of our men would hold to the strict letter of the formation when the great and wild-eyed cat headed directly toward him. And so we lost our opportunity.

On this particular surface the ice boats had us beat to a standstill, as we had to make long curves and at low speed. Several met with side-slips and others deemed it wise to keep out and so presently only Spragie, Washburn and myself remained to contest. We decided to maintain the original formation and to "butt in," putting it up to the more easily handled craft to keep out of our way and avoid running us down. Working fearlessly along these lines gave us a fighting chance and enabled us to "pull" together. Presently two of the ice boats came into collision and were put out of commission. This improved our chances, as the remaining craft showed a real disposition to assist in the capture. Having spent his strength the lynx now seemed determined to stand his ground and show fight, merely moving out of harm's way and refusing to escape when opportunity offered. Little wonder. The sudden transition from the tranquil solitude of the forest to the boisterous excitement of the chase, the keen cutting whisk of the sharp ice boat knives as they grooved the lake surface with graceful pencilings, the hoarse shouting of a score of excited men, and above all the rapid fire exhaust of a dozen motors, set up a series of reverberations that echoed from hill to hill until it seemed that Babel had been let loose.

While Doherty in his swift ice boat whisked by, almost grazing the cat and taking his attention, I charged him from the other side, followed closely by Washburn. Wheeling around and perceiving me too late to escape a collision, he sprang directly at my head. Did I duck? Yes, and so quickly that I laid my eye open through contact with the handle bar. I felt his sharp claws pierce my heavy clothing and puncture my skin in his endeavor to hang on, and thanked my lucky stars that our heads were pointing in different directions. He would have had no time to lacerate me however, as at that instant Washburn whizzed past, and shoving the revolver into the cat's open mouth, he literally blew its head off.

Fifteen husky young men now formed a circle and to the music of the tom-tom (tin pail) executed a late version of the "Salome Dance." The real excitement now being over, it was in order for each one to have his say and tell "how I did it." According to my best judgment, this would require several hundred pages of manuscript, and so we will omit it. But Spragie and Bickey deserve special mention in connection with this part of the incident. Their vivid if not lurid descriptions of their many hair-breadth escapes "when he charged me so and so," made many of us wonder if we were even there, or if we had only experienced a night-mare. Billy Webber called my attention to the fact that these gentlemen's vests were unbuttoned at the top and would not meet by several inches, due to sudden and unaccountable chest expansion.

After an exciting afternoon's ice boat racing, we gathered at the landing and talked it over some more. Recollections had now become clearer and plenty of evidence was adduced to show that both Spragie's and Bickey's greatest feats had mostly been that of holding the other fellow on the inside up to his job. Anyway, they were able to button their vests when we got through with them. The lynx was awarded to the writer and excellently mounted by the S. L. Crosby Company, of Bangor, as the accompanying photograph will show.

CHAIRMAN THORNLEY PUNCTURES A MISREPRESENTATION OR TWO.

ANENT the attitude of our New York contemporary toward the chairman of the F. A. M. Competition Committee, the latter has written to Messrs. James E. Sullivan and R. F. Kelsey, of the A. A. U., the following letter:

"My attention has been called to an article in the *Bi-World* of Feb. 12, 1910, page 760, under the heading of 'Bad Sport,' says Sullivan, etc. It was not until I had read the article carefully that I was able to determine exactly what Mr. Sullivan had said and what he had not said. My first impression was that Mr. Sullivan was responsible for the whole article. While this was an error I believe that there will be many others who will make a similar mistake. They will credit both you gentlemen with having already passed unfavorable judgment not only upon the Guy Greene case, but upon other matters as well. This only goes to show to what desperate straits the editor of that paper is driven when he will drag into an article which is misleading from start to finish, the names of his friends.

"This, however, is not his worst offense. In question No. 1, he asks: 'When an amateur competes with a known professional,' etc. It is certain that you are not aware that our rules read: 'Who has never knowingly competed in any sport against a professional.' (I enclose a marked copy of our Competition Rules). I respectfully submit that 'to compete against a known professional' and 'knowingly to compete against a professional,' are two very different things. What the whole world knows is frequently what the man most interested does not know. So with the other questions in this article. Certainly a man should be notified of and have the right to defend himself against an action which implies willful intent and guilty knowledge. The whole matter hinges upon this one clause, which has been so skillfully changed in the article referred to, as to completely alter its meaning, in so far as it may have any bearing upon F. A. M. matters, or its Competition Rules. I do not intend to put myself on the defensive, but as the records in the Guy Greene case are public property, I will upon request gladly submit them for your examination.

"Since this editor has dragged your names into what you now must know is an F. A. M. family quarrel, I am sure that it is needless for me to suggest to you the good taste of not becoming involved in it. If he finds himself in so hopeless a minority in the F. A. M. as to be obliged to call for help, you should realize that there must be some very good reason for it; neither will you have to go far to find it.

"If on the other hand your friendship for him is such, or the case is so important that you feel impelled to enter into it, I hope that you will sustain your well-known reputation as lovers of fair play, by thoroughly familiarizing yourselves with all the facts, before you allow your opinions to be quoted. As the matter now stands, your opinions have been obtained upon misleading questions, which may be followed by misleading conclusions on the part of readers of the *Bi-World*. I cannot believe that you gentlemen will allow such misunderstanding to remain uncorrected.

"Very sincerely yours,
"J. P. THORNLEY,
"Chairman Competition Committee."

ELEVEN makes of motorcycles will be shown at Boston, as follows: Indian, Thor, Excelsior, Merkel, Yale, Racycle, Reliance, Pierce, M.-M., R.-S., and Crouch, the latter being the only one which was not exhibited at either the New York or the Chicago show. For the first time the little machines will be staged in the gallery instead of the basement.

A CHEAP CLIMB UP THE WHITE MOUNTAINS

I WONDER how many folks have wished to go to the White Mountains but have been unable to do so on account of expense? One Sunday last October, in company with two other riders, I left Lynn, Mass., for a motorcycle trip into these mountains. They each had a single cylinder Indian and I rode a single M. M. We left at noon and went to Newburyport and Dover, finding good roads and fair scenery. Here we ate a meal to which we did full justice, in fact, one of the crowd regretted it later. From Dover to Rochester we struck roads unfit for man or beast to travel. It appeared as though all the sand in southern New Hampshire had been dumped in a promiscuous manner over that stretch of ten miles. As we rode on through Milton to Sanbornville we passed many beautiful farms and the large lakes owned by the Boston Ice Company. We arrived at the hotel in Sanbornville at dark. Once more we ate heartily and after a good night's sleep arose early to look over our "steeds." We were the center of a goodly-sized gathering as we cleaned and oiled up. Riding toward North Conway, we got no farther than the Issipee, owing to the illness of one of our party. Do not eat fried clams on a motorcycle trip.

After a long day's rest our companion recovered and we proceeded to Chocarua Lake, where we stopped to view the mountain of the same name. A more glorious day could not be imagined, it being balmy and so clear that one could hardly tell the difference between the mountain and its reflection in the lake. After feasting our eyes on that scene we rode through the Albany Intervale to Conway, North Conway and up to Mount Kearsarge. Having made such good time we decided to try for the Glen House at the foot of Mt. Washington. So on we went to Jackson, where we bought some fruit and crackers and had our faces "smoothed out." Say, but I would like to know where one can obtain a meal that tastes as good as one eaten when the partaker thereof is seated near a clear running brook with mountains in all the gorgeous colorings of autumn on every side. That's being alive!

The road to the Glen House is quite hilly, in fact Spruce Hill (at home it would be a mountain) would test the powers of the best machine there is. I found that the easiest way to get up those hills was to jump off while the engine was going and run along beside it. However, it was a great relief to reach the top and coast down to Glen Ellis Falls. The view of that fall of water, a sixty-foot drop, is well worth the hard climb. Four miles beyond we came to the Glen House at dusk. Here we intended to get blankets and spend the night in the stage office of Mt. Washington, but, alas, the only people at the Glen House were the keeper and his wife. Without any warm covering to protect us from the frigidity of the atmosphere, sleep was impossible. So we got up at midnight, took a lantern and started up the mountain for the half-way house where, at the witching hour, we went inside, made a fire and warmed ourselves. When we struck the six-mile post we found snow and ice. The glorious autumn moon was setting and the lights of Berlin and Gorham gave us an idea of our distance from the haunts of mankind. When we reached the summit we climbed into the stage office, made a fire and ate a very light repast. By this time the sun began to appear. Can one find a grander sight than a sunrise from Mt. Washington? The mists were in the ravines and valleys, so that the mountain peaks appeared like islands. After the sun was up an hour the wind rose and we had to run all the way down through the woods in order to keep warm.

ARE THE WOMEN FOLK INTERESTED?

We were glad enough to get "aboard" our cycles for our ride to Gorham and Jefferson meadows. Our next stop was at North Woodstock, over the State road as rocky as a pasture. We stopped to see the Old Man of the Mountains, the Basin and the Flume. The former is certainly a most impressive sight. It makes one stop and try to think just what he ought to be. The roads through the Franconia Notch to North Woodstock are mostly through cool woods, untouched by man. I wish we could say the same of all the territory through which we had ridden. If Uncle Joe Cannon would only ride through that country and see how the timbermen are destroying the forests, I am sure that even his stony heart would warm up to the necessity of government action.

After a night's rest in North Woodstock we went through the Pemigawasset Valley to Plymouth, where we visited a county fair. The queerest characters and turn-outs were there and the flimflam men were reaping a harvest. The trip on to Holderness was horrible, up hill and through loose sand on a hot day. It was made mostly afoot. We finally got to Squam Lake, pushed on to Merideth and Lake Winnipasaukee and then to Tilton over dandy roads. The last day of our journey was given over to the ride through Manchester and finally to Lynn. We had covered four hundred miles in six days at a total cost of $1.48 for gasoline and oil. What other mode of travel can equal that for time and expense? And, would you believe it, we all gained flesh during the trip.

E. I. PHILLIPS.

* *

LOS ANGELES has a curious character in the motor field, a man who may be said to be in a class by himself. We have often heard of house wreckers, men who *dissect* houses and sell the various parts to those who most need them; but this is the first time we have ever heard of auto wreckers. He is one Metz and has a store at Old 9th and Market streets. He makes a specialty of buying decayed and broken down automobiles and motorcycles, which he takes to pieces and sells part by part.

THE ALL-WEATHER MACHINE

I NOTICED that at the recent Stanley Show in England several examples of "all-weather" motorcycles were exhibited. It may be taken for granted that this type of machine was designed and produced to meet the demand of a certain class of the public. The system employed in "weather-proofing" a motorcycle is that all plated parts are abolished and the nickle plating replaced by enamel. Perhaps to some of us who love "the vain outward show" as the Bible has it, this type of machine might strike one as being somewhat funereal in aspect. Certainly in the all-weather mount we have the very antithesis to the gorgeous nickel plate, the only finish familiar to show visitors, yet the utility of the other cannot be doubted for a moment.

Cleaning rusty nickel plate was always an irksome job at the best, as the hardy rider will willingly testify, and there are many of us who are of the all-the-year-round type. Generally speaking, with the average bad-weather rider and machine there is nothing but to smother all the bright parts with a thick coat of vaseline, which picks up dust merrily yet obstructs the inroads of the dreaded rust fiend. At the same time this dirty vaseline has a tenacious habit of sticking to one's clothes and person but, even at that, anything is better than rust. Some of us use motorcycles day in and day out, regardless of weather, for business purposes. Again there are hundreds of machines in daily use by R. F. D. carriers and by others of kindred occupations. To such as these, the all-weather machine would undoubtedly appeal, as an all-enamel mount would give a far more presentable appearance than one on which the inroads of rust appear on the nickel plating. Again, my merry henchman, the quality of nickel plate on some machines is not always of the best and its pristine brilliance often lasteth but a day or two. As I have pointed out, there are many clips, fittings, and "sich-like" on the ordinary, everyday motorcycle which would look far better if they were enamelled to match the frame of the machine, instead of having a thin coat of nickel plating "washed" on.

The machines of the all-weather sort which were exhibited at the Stanley Show were, I believe, finished in a workmanlike shade of gray, even the handlebars, hubs, hangers and pedals being enamelled. Another color, one which would give perhaps a better effect, would be pale coffee, as this would not show mudsplashes as much as the gray. Such an all-weather machine would undoubtedly command a sale. Besides the absence of plating, extra wide mudguards with large flaps, belt and chain guards and magneto covers could be supplied to advantage. With a wide mudguard with an inward turned channel at either edge, the water and liquid mud have a tendency to run down the channels and drip on to the road away from the machine. The front mudguard flap should be of larger size than the ordinary one and carried round on both sides of the front wheel for a few inches, so as to partly enclose the tire. The chainguards or "gear cases" would form an addition to a chain-driven mount, the utility of which can only be guessed at by those who have not tried them. The abrasive action of grit will soon wear the best chains and sprockets out of pitch, and an oil-retaining "gear case," with the oil bath in the lower half of the case, would mean long life and "silky" action of the chain and sprockets. The same thing may be said of belts to a lesser degree. A belt guard to prevent water and grit getting on the surfaces of either belt or pulley should be part and parcel of the design. The hubs would have to be rendered extra weather-proof and oil-retaining.

On some of the all-weather mounts abroad a process named "Coslettizing" is used. This consists of dipping the parts and even the frames of the machines in a chemical bath, the result being a deposit in the form of a hard rust-proof surface of a dull gun-metal black. This process gives an absolutely rust-proof effect to the metal but as a general rule the parts are enameled afterwards. "Coslettizing" must not be confounded with oxydizing as it is an entirely different process and superior in every way. It would be better, of course, to plate small levers, etc., for, were these enamelled, the paint would wear off very quickly. To turn out a proper weather-proof machine and give it a workmanlike effect throughout, it would even improve matters to enamel the lamp and horn the same color as the machine, as cleaning their odd corners is a job which can hardly be described as easy.

I am not one of those lazy riders who advocate the non-cleaning of a motorcycle. On the contrary, I like the smart appearance of a well-groomed mount and always do my very best to keep my machines in spick and span condition. Yet the machine which I use for all-weather purposes falls far short of the ideal in appearance. It is not a monument of cleanliness and, although I endeavor to keep the rust away, it gets there just the same in spite of many applications from mother's vaseline pot. Therefore, for hard everyday usage the machine described would undoubtedly fill the bill and do its daily quota of work without coming out of the ordeal having the appearance of a second-hand battered junk heap. As an experiment in this direction, I intend as soon as time permits to give the old warrior an all-weather finish. It may prevent my selling it in the end, but this is a minor point, taking into account the endless trouble and work which I shall save myself and, after all, one expects to keep the all-weather machine until the flywheels fall out of the crankcase and real senile decay sets in.

As I have said, there is undoubtedly a market for such a motorcycle turned out by an enterprising manufacturer as one of the options to the variegated classes of purchaser to whom the motorcycle appeals rather from a utilitarian point of view. Mayhap, in the glitter and glare of a show exhibit, such a machine may not entrance a crowd, but the few it would attract would probably consist of hard, all-weather riders, veterans of slush and wagon rut who scorn dandified fitments and finish. If such a machine can find a ready market in England, where the roads are good and well drained, how much more would an all-weather motorcycle appeal to the American market, and prove more than useful on roads where the mud lies deep and slushy snow predominates at this time of the year? A medium low gear would have to be fitted for all-round work, but, of course, in preference to this, a two-speed and free-engine device.

In dealing with this question I have merely sketched the general requirements of an all-weather motorcycle. Doubtless, these can be greatly improved upon, but the idea is there just the same, and I believe I have shown the need, and the question is—Who will step into the breach and fill it?

"We are getting wonderful returns from our recent page advertisement in your paper.
MINNEAPOLIS MOTORCYCLE CO."

TIPS AND TOPICS

THROUGH force of circumstance, my merry masters, I am writing these notes on board ship off Key West, just entering the blue Gulf of Mexico. Recent gales, which upset my carbureter float and seriously interfered with the feed-pipe, so to speak, had driven matters motorcycular from my head, but the balmy, warm air of the Gulf reawakened the longing for a clear open road ashore with full spark and throttle—even the veriest tyro amongst us knows that "damn the cop" feeling which comes along after a holiday from the machine—so here I am. The action of this here boat the other night reminded me of an early experimental type of knock-out front axle which I once tried. The inventor assured me that it was unequalled as a quickly detachable device, and as the axle "unput" itself while I was riding, I had a practical demonstration right on the ground floor, as Horace would have said. Since that time I have always got the other fellow to show me first. The sight of the Florida beaches this morning made me wonder how many miles of actually good riding one must be able to find in this State. It looks to me as if a motorcycle camping tour, with gasoline sent on to central points, would go well and would promise something novel indeed for the holiday-seeker. The Lone Star State is my ultimate destination—no, I am not going South to verify friend Meriwether's observations in Texas; indeed, I think that they will be useful in teaching me what roads or trails to avoid in my wanderings.

* *

ONE drifts to motor topics very easily at all times, and I picked up a real good motorcycle yarn today in the smoking room. It concerned the weird experience of a beginner who filled up his lubricating oil tank with varnish in mistake for air-cooled oil. The result was too amusing for mere printed matter; anyhow, I gathered that it took two weeks of hard work to clean out everything thoroughly and get her going again. I have been driven to use salad oil on one occasion, to my regret and of those who smelt the result, but varnish—jamais de ma vie! as they say in the Scotch.

The fore-car used by the postmaster at Sittingbourne, England, when the deliveries are particularly heavy.

Now, I must get right down to my tiplets, or there will be a vacancy for an office boy on our staff. I know that many of my readers are winter riders, and I would suggest a handy tip for this time of the year. First of all, a cover for the magneto is essential; secondly, vaseline applied to the terminals is a good preventive of shorting. Then again, when riding in the wet in a real downpour, one often suspects the magneto when the engine misfires and the real cause is rain on the spark plug or high tension or secondary terminal. It is very simple to cut off a short length of inner tube, cement the top edges together, and cut a hole for the insertion of the cable, whereupon one has a thoroughly weatherproof protector for the plug and one which costs nothing to make. The rubber case should not come lower than the metal shell of the spark plug, as otherwise it may get burnt, and the smell of burnt rubber is not in any way appetizing.

I had an interesting conversation with a tire man during the recent Show. I had experienced excellent results with the same make of tire, yet during the year I had received one serious complaint from a rider. Always have I endeavored to impress upon my readers the necessity of keeping tires pumped up hard, and I inquired from the tire man whether, with the rules I had laid down as to pressure of inflation, filling of cuts with cement, etc., there could possibly be any trouble. He replied that there was a chance, and that this might consist of an unsuspected flaw in the manufacture of a cover. He pointed out that the chance of such flaws was very small indeed, yet even a drop of honest sweat from the brow of an operator might cause a hidden weakness or a blister between the layers of fabric. It seems that cleanliness is the tire manufacturer's watchword, yet it can be easily seen how a speck of foreign matter on the rubber could ruin the tire. Still, taking the general rule, it is misuse and not faulty construction which accounts for the "short life" complaints of which we hear from time to time. Otherwise how can one account for the diversified reports on the behavior of the same make of tire from different riders. Speaking of tires and different results from usage, it is strange to note the peculiar immunity from punctures which some people enjoy. Often it is true that these lucky ones care for their tires according to the handbook. But apart from the man who is exempt merely from luck, I like to study the methods employed by some persistent scorers in reliability trials. I remember that one rider, who annexed medals by the barrel, attributed his freedom from the puncture fiend to the fact that he had fixed small chains to the front forks and back stays of his machine, with the result that any nail, thorn or small flint was pulled out by the drag of the chain before it had firmly embedded itself in the tire. It stands to reason that a flint or nail is carried round for several revolutions of the wheel before it eventually finds its way through to the tube. As I believe I have mentioned before, I have tried this dodge myself, and I am sure that there is something in it.

* *

I NOTICE that the Hendee Manufacturing Company intends to make a bid to lift the British Touring Trophy Cup this year. The secret in successfully carrying out the program lies not only in the qualities of the machine, but the experience of the rider in road racing and the organization of repair camps. Let us hope that the "heap braves" will be successful, as this would mean an unheard of boost to the sport in America. Our motorcars have never made any showing in Continental road races, and if the motorcycle can lead the way broadcast publicity is bound to follow. We cannot help passing a tribute to the Collier brothers, who seem to keep a tight hold on Tourist Trophy honors. Originally a small assembling firm, and even now not a very large company, these enterprising brothers have consistently scored against the leading French and English manufacturers. I hear also that a leading French manufacturer is sending a well known racing man with something speedy in the motorcycle line to the Isle of Man this year, so that now the race promises to be somewhat of an international event.

* * *

A WEARY salesman at the Show told me that he thought that a useful basement innovation would be a phonograph which would spin off the specifications and virtues of a machine to the irritating man who asked questions and did not want to buy. At first thought the notion looks good, but when one duly weighs up the merits of this salesman's jest, cannot one see clearly the mistaken idea? No matter whether a man is in the market for a machine or no, the more one can interest him in any particular machine, the better friend one has in the inquirer. Looking further than this, the questioner has the power of recommendation to his friends, and this is sometimes not to be overlooked, as it is an automatic advertising circulation which costs nothing save a little patience and courtesy in the original instance.

* * *

A WORD in season to the unwary. Now is the time when one has decided on the new mount and the order is to be placed soon. Do it now! Have you not suffered in the past from delayed delivery of the longed-for machine just when it was most needed? No manufacturer can gauge the *probable* demand for any particular model to such a nicety that delivery is *bound* to be prompt. The buying public hesitates until the first signs of good weather, and then "snows under" the manufacturer with rush orders. How much better to have the motorcycle all ready and perhaps even tuned up when the gladsome springtime arriveth. When one has to rush things, tuning up, the fitting of accessories and the hundred and one little jobs necessary to fit the motorcycle for the open road are carelessly done and the rule that "a thing worth doing is worth doing properly" is not adhered to. How many of us have suffered from the irritating constant adjustment and jangle of ill-fitted horns—sometimes even a fall is the result of such carelessness. Yet it is not always the rider's fault, for some accessories, horns in particular, lack substantial clips and cause endless trouble on the road. Years ago, lamp brackets gave all the bother. Now that this difficulty has been overcome, we are more prone to notice the shortcomings of the horn attachments.

* * *

A SOUTHERN rider tells me of a sorrowful experience which may point a moral, to wit, that if you want a thing done properly it is best to do it yourself. This rider had a brand-new speed-beast resplendent with enamel and nickel trimmings. On returning from his first long ride he ordered a colored boy to clean the mud off the machine, and went in to supper. In the morning he went out to the shed to inspect the job, to find that the boy had diligently sandpapered the whole caboodle. The only way to get mud off is to wash it; "dry cleaning" must be studiously avoided. It stands to reason that mud, dust or road grit act as strong abrasives and will take the gloss off the best enamel in the world.

"Gentlemen—Here's my dollar, for which I trust you will continue to give me $10 in value, as you did last year. "CHAS. G. HOSMER."
Sault Ste. Marie, Mich.

THIS rider needs no introduction to those who have attended race meets in the South. Last summer, then unknown, he came from Elizabeth City, N. C., to Bennings, where he made a profound impression. He is J. Boyd Anderson, and he will be heard from during the 1910 racing season.

* * *

DWIGHT PATTERSON.

HIS many friends were shocked to learn of the recent death of Dwight Patterson, chairman of the F. A. M. Legal Committee and until two months ago president of the New York Club. Mr. Patterson had been ill for some time and consequently unable to attend either to his professional affairs or to the New York organization, in the development of which he had been deeply interested. Owing to his absence from several meetings, he was determind to attend the annual session of the club in January, despite the warnings of his physician. Although he reached the meeting place he was too ill to preside. A few days later he was taken with pneumonia, to which he succumbed at his home on Saturday, February 12. Mr. Patterson was an old bicycle rider and had ridden a motor driven two-wheeler for several years. He was also an oarsman of considerable ability. Thirty-three years of age, he was a lawyer by profession. He is survived by a widow.

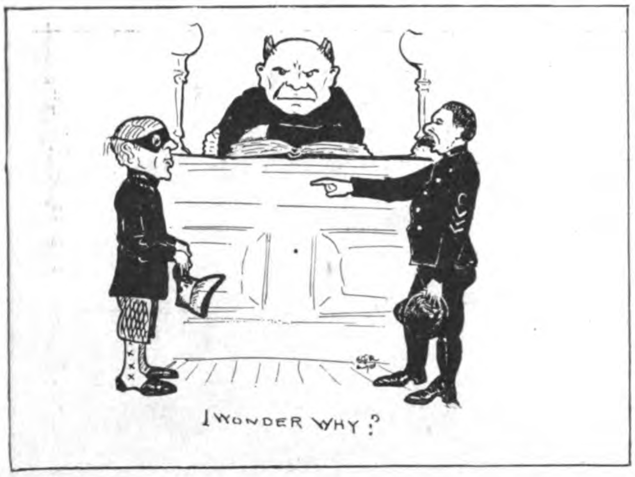
* * *

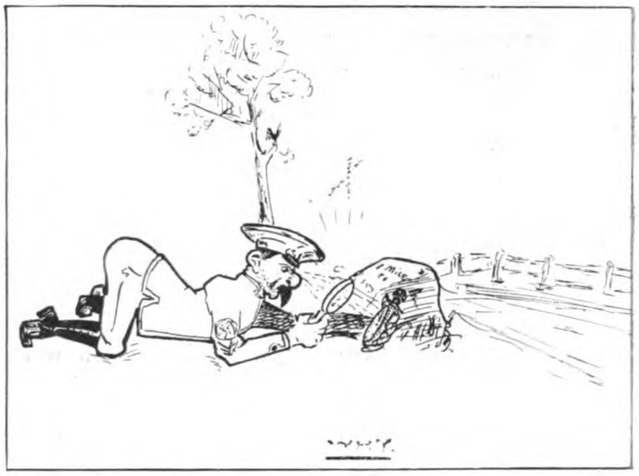
ANOTHER SATISFACTORY EXPERIENCE.

A. W. DUCK, of Oakland, Cal., recently published a single quarter-page advertisement in this paper, advertising his patented cushion spring tandem attachment. He writes us under date of Feb. 19 that he has received inquiries and orders from riders in practically every State and territory in the Union, which goes to show, according to Mr. Duck, that "MOTORCYCLE ILLUSTRATED is universally and carefully read all over the country."

* * *

J. LANGTRY has just been elected president of the Milwaukee Club. The other new officers are as follows: W. Gupsle, vice-president; M. Schneider, secretary; A. Taylor, treasurer.


I WONDER WHY ?



A TWENTY-EIGHT MILE, 2,800 FEET ROCKY MOUNTAIN CLIMB

THE availability of the motorcycle for touring through the Rocky Mountain region has been demonstrated in an unmistakable manner by Colorado Springs riders on several occasions. It was not so long ago that Sheff and Riggs, of Colorado Springs, ascended Pike's Peak to an altitude of 14,147 feet on Reading-Standard machines. Several times a year representatives of this firm climb some three thousand feet into the mountains in the Pike's Peak and Cripple Creek gold mining district and make the round trip in a day. Located high in the Rockies at an elevation of 9,000 feet above the sea level are a number of lakes which sooner or later will probably be incorporated into the water system of Colorado Springs, and these trips are made at frequent intervals for the purpose of inspection. One of the most recent trips on Reading-Standards was made by W. B. Glasser and T. W. Wilson, of Colorado Springs. The route is through Ute Pass to Woodland Park. The total distance is twenty-eight miles, during which 2,800 feet is climbed. Colorado Springs is 5,200 feet above sea level and the lakes are 9,000 feet in the clouds. From Colorado Springs to Woodland Park through Ute Pass the average grade is estimated at 8 per cent. From Woodland Park to the bottom of "Ambition Hill" is four miles with a grade of 12 per cent. The hill has a 35 per cent. grade and was named by motorcyclists whose ambition was gone when they reached the top on their first trip. This hill is about four city blocks in length and seems to climb right into the clouds. The trip from Colorado Springs to the lakes is generally made in about two hours and a half, with something less for the return journey. The trip on one occasion was made in March when the machines had to plow through three feet of snow which had accumulated near the top of "Ambition Hill."

W. B. Glasser.

Through the Timberland.

Part of the "Road."

MOTORCYCLE ILLUSTRATED

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J. Leo Sauer

L. H. Cornish - - - - - - - *Advertising*

A FINE STORY BRIEFLY TOLD

A Comparison of Our Circulation Figures

MARCH 1, 1909 3,750
MARCH 1, 1910 6,100
GAIN IN ONE YEAR, 2,350 COPIES;
INCREASE, 63 PER CENT.

QUALITY AND QUANTITY TOO

A BURSTED BUBBLE.

SOME time ago, we instructed our English correspondent to interview a British expert, who had just returned from the United States, on the merits and the faults of American-built machines. Our staff man on the other side soon presented us with the result of his endeavors—and we were stupefied. For the man whose impressions he had put into writing is an altogether clever fellow of a charming personality, a large accessories manufacturer, quite broad in his views and a thorough-going student of the art, the science and the sport of motorcycling. But his impressions! Was there anything uncomplimentary that he had left unsaid? Was there a single possible criticism that he had not uttered in the thousand-word arraignment with which we were favored by his interviewer? No, permit us to assure the trade that he regarded with a feeling akin to scorn everything appertaining to the manufacture of motorcycles in this country, although he condescended to admit that we were learning rapidly, and would ultimately produce fairly good machines.

Only a few months after that stinging broadside had been banged off the typewriter, an American machine has obtained the highest percentage in the first A. C. U. Quarterly Trial of 1910. That machine had already demonstrated its possession of speed, but your hard-headed subject of King Edward persisted in scouting the very idea of its proving itself reliable. Now that all doubt on that score has been removed, to what expedient will the foreign critics next have recourse? Will they never acknowledge that our very practical way of beating them at their own game is something of greater import and quite more convincing than their wonderful theorizing? We have learned not a little from the other side, nor do we hesitate to credit them with what they have taught us, but their claims of all-around superiority are much too amusing to be at all intolerable. However, we have given them something to ponder over until the next trial, when the result of the first one is likely to be repeated, again to their chagrin and dismay, and so on *ad infinitum*.

CAN WE HELP YOU?

QUESTIONS? Have you one you cannot answer to your own satisfaction? Any problem you cannot solve, any difficulty you cannot overcome, or any trouble you cannot obviate? Buy a stamp and shift your burden to our shoulders. Give *all* the symptoms and explain to just what extent you have tried to effect a cure. The plainer your question the more satisfactory will be our answer. If the expected reply does not appear in the issue next succeeding, don't worry or imagine that we are neglecting you. We shall try to prevent your waiting too long; in every case you will have your answer in a fortnight, in the paper if convenient, or by mail.

Then, again, you may have had some unique experience, something that has taught you a lesson which your fellows would be pleased to learn. Our Correspondence pages are open for everything of that sort, and as well for suggestions, criticisms, "kicks" or words of deserved praise of men and machines, as the case may be. We have reduced the size of part of our type so as to be in position to publish a greater number of Questions and Answers and more Letters to the Editor. So don't be over-modest for fear that you may be asking too much. We want your co-operation and you are entitled to ours to the full extent of the ability of our staff. Accordingly, make yourself at home in our columns. We'll keep the paper big enough to satisfy all your reasonable needs. That's why we're here. 'Tis our duty, and your privilege to make the most of it.

PUBLIC SENTIMENT CHANGING.

A GENEROUS amount of publicity of the favorable sort was given to the motorcycle exhibits at the Chicago Show by the Middle Western newspapers. The articles published by the general press indicate a commensurate change in public sentiment during the past twelvemonth. The little two-wheeler is becoming very popular in the eyes of thousands of outsiders who have been impressed with its wonderful adaptability to any and all conditions. The riders themselves have undoubtedly contributed to produce this most satisfactory reversal of public sentiment, simply because a large number of them have taken to heart the advice of the more conservative to the effect that they have a decent regard for the rights and privileges of other road users. The result has been cleaner and neater-looking riders and machines, less recklessness, quieter running and numerous other improvements in an operating way. All of this is encouraging and full of promise. In fact it has already borne excellent fruit. It remains for those who are doing the right thing by others to continue that practice, and for the few who have neglected to do so to get right in line.

THE F. A. M. UP AND DOING.

IT may appear to many that the erstwhile moribund condition of the F. A. M. is still a fact. Those so minded are wrong, entirely wrong. A generous amount of hard and intelligent work is being done everywhere except, it seems, in the Pacific Coast District, where the Federation, as such, is not making extraordinary progress. Much of this work does not appear on the surface, as the "doers" in the Federation are not given to bragadaccio just for the sake of making themselves conspicuous. No one who hasn't had some experience of this sort realizes what it means to organize an entire country. 'Tis a monumental task, with at times almost heartbreaking obstacles to overcome, not to mention lesser discouragements of fifty-seven hundred varieties. Soon, however, practically every State will have its commissioner and the Federation will be officially represented in hundreds of municipal communities, in nearly all the cities, towns and villages having any reasonable number of riders. The membership committee, chairmanned by the tireless and faithful Estabrook, is rendering assistance everywhere and supplying everybody with valuable suggestions. The committee is doing a great work for the F. A. M. Its constructive endeavors are producing results, for which the F. A. M. has not always been famous.

* * *

VERY POOR ADVERTISING.

SEVERAL columns were a few days ago devoted by the daily papers of this city to what the New York *Sun* entitled a "Perilous Race on Motorcycles—Sergeant tells of wild ride in making arrest—60-mile speed up Fifth avenue—Fugitive grazes hearse in dashing through funeral." Then comes the story, true, it seems, pitiably true. The rider was ultimately caught, though after the race, but in view of his impending punishment, that thought will give him little of either comfort or satisfaction. Fortunately, the daily press finds very few opportunities to thus exploit the shameless performance of a speed maniac, but even one a year is more than the sport can safely bear. Our missionary days are still with us; we can ill afford such notoriety as even one arrant law-breaker can give us. We are still more or less on the defensive, that is, forced to "show" the multitude that we have just what it wants. A score of good arguments are as naught in the face of the circulation of stories such as the one above referred to, and which invariably spoil a lot of good, hard work in the way of making converts.

* * *

TEMPEST IN A TEAPOT?

GUY GREENE? The name sounds familiar. If our memory serves us correctly, one so called at one time had a little set-to with the F. A. M., during which he was reputed to have said certain uncomplimentary things about the Federation. This difference came after Greene had ridden with a professional, but according to the former's friends, unknowingly. There was much talk, but no action was ***officially and properly*** taken to professionalize the man. Now comes along the Competition Committee and, upholding its chairman, declares Greene to be an amateur. Mind you, it does not reinstate Greene for, according to the records, he was never anything else. But there was a cloud on his title, as it were, and the properly constituted authorities of the F. A. M. have simply cleared it away—nothing more.

No material, if any change, has taken place in Greene's *status quo.* If he is a professional in fact, there is absolutely nothing to prevent action being taken to make him so in name. The Competition Committee did not decide that Greene could not have done anything that would justify his being professionalized; instead, it decided that Greene had never been labeled a professional. There was therefore no re-instatement by the committee, but simply an explanation, after a careful, thorough and conscientious inquiry.

Viewed from this standpoint, the whole controversy is like unto a cyclone in a rain barrel. The atmosphere has been loaded with personalities, vituperations and the like—to what purpose? In any event, aside from any considerations involving the rider under suspicion, where is there the slightest warrant for heaping abuse upon the chairman of the Competition Committee? He is broad enough to understand that there are many who believe Greene ought to be professionalized, but he seems unable to make certain folks understand that the proof of the man's guilt has not been established in the manner required by the provisions of the Constitution and By-Laws of the F. A. M. Let any one so disposed do this, and then we shall have an opportunity to discuss the real merits of the question. Up to the present, these have not been brought into court. Wherefore, then, all this fuss and feathers, this vapid reasoning in a circle or, rather, these aimless attacks, over the head of Greene, upon innocent persons? Why not sense instead of bitterness, and logic in the place of mere personalities? Above all things, those who venture to argue ought at least to know what they are arguing for, and about. But of that, enough.

IN PROSPECT

March 2-3. Keene (N. H.) Show.

March 5. Chicago Club Smoker.

March 5-12. Boston Show.

April 10. Washington (D. C.) Reliability Run.

April 11-16. Washington (D. C.) Sportsmen's Show.

April 20. Meeting of Motorcycle Manufacturers' Association at Buffalo.

May 29, 30. New Jersey Club's Endurance Run.

May 30. Waltham (Mass.) Club Run to Keene, N. H.

May 30. Springfield (Mass.) Club's Decoration Day Meet.

Aug. 3, 4, 5. Convention at Atlantic City of National Cycle Parts and Accessories Association.

* * *

METROPOLITAN ASSOCIATION ELECTS.

THE organization of the Metropolitan Association of Motorcycle Clubs was practically perfected with the election of officers at the meeting held in the headquarters of the New York Club, the evening of Friday, Feb. 25. There were represented at this session the New York, New Jersey, Harlem, Concourse, Linden and Long Island clubs, respectively. Owing to the fact that none of these organizations had present its full quota of delegates, it was decided to conduct the election by having each club cast one vote. This detail determined upon, the election proceeded and the result was full of surprises, the following being chosen: President, L. H. Guterman, Harlem Club; vice-president, H. C. Page, New Jersey Club; treasurer, J. N. Constant, Linden Club; recording secretary, Milton Levy, Harlem Club; financial secretary, Arthur C. Klages, Long Island Club. The officers with two other elected members constitute the Board of Governors, and R. S. Morton and Dr. J. P. Thornley were chosen to complete the governing body. The Constitution and By-Laws were passed upon in an informal way and will be ratified after having been approved by the individual clubs.

In addition to the election of officers and action on the Constitution and By-laws, agreement was reached regarding the dates of the following national and New York Club events: First Quarterly Trial, Sunday, April 3; Spring Century, Sunday, May 1; Second Quarterly Trial, Sunday, June 12; Race Meet, Sunday, July 17; National Hill Climb, Saturday, August 6; Third Quarterly Trial, Sunday, September 11; National Non-Stop Economy Run, October 14; Fourth Quarterly Trial, Tuesday, November 8.

President L. H. Guterman, who is also president of the Harlem Club, is known as one of the liveliest and most progressive riders in town, and there is every reason to believe that his administration will be an entirely successful one. In connection with his committee appointments, President Guterman announced at the meeting last Friday night that it was his wish to have the various clubs recommend those whom they consider best fitted to fill the various places. Mr. Guterman is particularly anxious to forward the interests of the Association as such without in any way interfering with those of the individual clubs.

FEDERATION OF AMERICAN MOTORCYCLISTS

THE F. A. M. AND ITS NEEDS.

THE F. A. M. is vitally in need of two things. The first is a new constitution and by-laws which will place the F. A. M. on a larger, broader and more businesslike plane. The old constitution was satisfactory for its organization, but it has outlived its usefulness. The new constitution and by-laws, which will go into effect before the next annual assembly, to be held in midsummer, incorporate a plan for broader management and one that will be more efficient as the F. A. M. grows in membership.

Then the F. A. M. also needs a larger membership. The present administration has inaugurated an extensive plan whereby the benefits to be derived from membership in the F. A. M. have been exploited throughout the entire country and new members are coming in every day. However, those interested in the success of the F. A. M. and those interested in the sportsmanship side of motorcycling, must make it their duty to solicit new members and help the organization grow.

The country is too large for the national officers to single out each motorcycle rider and induce him to become a member of the F. A. M. The various committees, including the State organization, are busy building up a bigger and better F. A. M. They need the help of each and every motorcyclist in the country. Make it your business to send an application to Secretary Leroy Cook, 185 Summer street, Boston, Mass., accompanied by the $2 initiation and membership fee. When the F. A. M. gets sufficient members we will be able to give motorcyclists of the country many more advantages for their $2.

In addition to keeping the sportsmanship side of the motorcycle on a clean, healthy basis, plans will be inaugurated for the securing of lower hotel rates, the promotion of tours and the establishing of official repair shops throughout the country and, most important of all, for taking up the legal questions pertaining to the sport. But in order to accomplish this the F. A. M. needs membership, and in order to get membership every motorcyclist must help the F. A. M. grow.

With an active membership the F. A. M. can proceed along broad lines and each and every member will be largely repaid by having his membership with us. I therefore want to make a strong appeal to every F. A. M. member *to secure at least one new applicant* for membership and forward his application to Secretary Cook this month.

F. I. WILLIS.

* * *

W. R. Schoonmaker, New Jersey Commissioner, has appointed John T. Zabriskie, of Arcola, N. J., secretary. He has also appointed Fred Rademan, of East Hackensack and Herbert Wulling, of Carlstadt, commissioners in their respective districts. Mr. Schoonmaker is actively taking up the matter of organizing his State.

* * *

AS a result of the work of E. B. Mayforth, Springfield, Mass., Commissioner, the Springfield Club has become affiliated with the F. A. M., the matter having been completed by F. J. Weschler, secretary of that organization.

* * *

ANOTHER recent F. A. M. affiliation is that of the Hartford (Conn.) Club, of which A. E. Brown is president. George Baker secretary and George S. Moslen, captain.

* * *

CHEYENNE, Wyo., riders are of the right sort. The club of which they are members has just become affiliated with the F. A. M.

LOCAL EMPIRE STATE COMMISSIONERS.

THE following F. A. M. Local Commissioners have been appointed by New York State Commissioner Harold Fletcher: Clinton G. Price, Poughkeepsie; A. E. Weed, Cortland; New York City—F. B. Widmayer, 2312 Broadway, Manhattan; A. H. Bartsch, 206 W. 76th street, Manhattan; E. Kircherer, 206 W. 76th street, Manhattan; H. J. Wehman, 1203 Bedford avenue, Brooklyn; Wm. Pflieger, 1604 Bushwick avenue, Brooklyn; F. A. Baker, 37 Warren street, Manhattan; J. F. McLaughlin, 2384 Broadway, Manhattan; T. J. Sixsmith, 203 W. 100th street, Manhattan; Geo. De Wald, 155 Ridgewood avenue, Brooklyn; J. N. Constant, 422 Gates avenue, Brooklyn; Walter Goerke, 1155 Bushwick avenue, Brooklyn; T. K. Hastings, 148 Nassau street, Manhattan; L. H. Guterman, 103 E. 125th street, Manhattan.

DECORATION DAY MEET AT SPRINGFIELD.

PLANS for the big Decoration Day meet, to be conducted by the Springfield Club on the Stadium track in that city, are rapidly maturing. The club intends to make this meet one of the most interesting of the season.

The principal event, as heretofore announced, is a big race of 500 miles in 500 minutes for $500. In addition to that there will be a relay race for teams of private owners from different cities. The distance will be fifteen miles with three riders from each city entering, each of whom will ride five miles. To make such a race possible it will be necessary to build a number of starting platforms at intervals around the track, one for each team.

THREE THOUSAND MILES WITHOUT A PUNCTURE.

ONE of the rural free delivery carriers of Indiana is D. C. Bosworth, of Fowler. A picture of Carrier Bosworth, mounted on his machine which, as will be seen, is equipped in a rather unique fashion, is shown above. Bosworth informs us that his mount is fitted with G & J tires, which have been in service for six months and have been ridden over 3,000 miles without a puncture.

WITH THE CLUBS

ITS second annual banquet was recently "pulled off" by the Providence Club. Charles Buffington was toastmaster and introduced as the first speaker, Charles H. Westcott, who gave an interesting address on the history of the club, telling of its inception and steady growth. He had high words of praise for the men who formed it, and whose interest and energy have kept it constantly growing ever since.

William W. Scott, who is sometimes a humorist and sometimes an expert on automobile laws in various States, then gave a highly instructive and entertaining talk on the best way to break speed records and get away with it. He told of the laws governing drivers of motor vehicles in various States, including Rhode Island. Mr. Scott is a member of the legislative committee of the club.

Victor Page, the former funny man, now an authority on aerial navigation, and who is engaged in the construction of a new idea aeroplane at a shop on Aborn street, entertained the members with a talk on aerial navigation.

Frank Domina, the President of the club, who has recently returned from a tour of Europe, where he took a number of interesting pictures, gave a lecture illustrated with lantern slides made from his photographs. He entertained the members for over an hour with a highly interesting discourse.

STEPS have been taken by Lyle Geiger, of Braddock, and others to put the Pittsburg Club on a business basis, rejuvenate it, and make it a "power in the Commonwealth." Heretofore the club has been used merely as a safety valve for that enthusiasm which manifested itself only in the shape of race meets and holiday runs. The reorganized club, having as its main object the promotion of motorcycling in general, will maintain headquarters, provide for assisting the Good Roads movement and improve the conditions met with by the tourist, aside from encouraging a healthy interest in the sporting side of the industry.

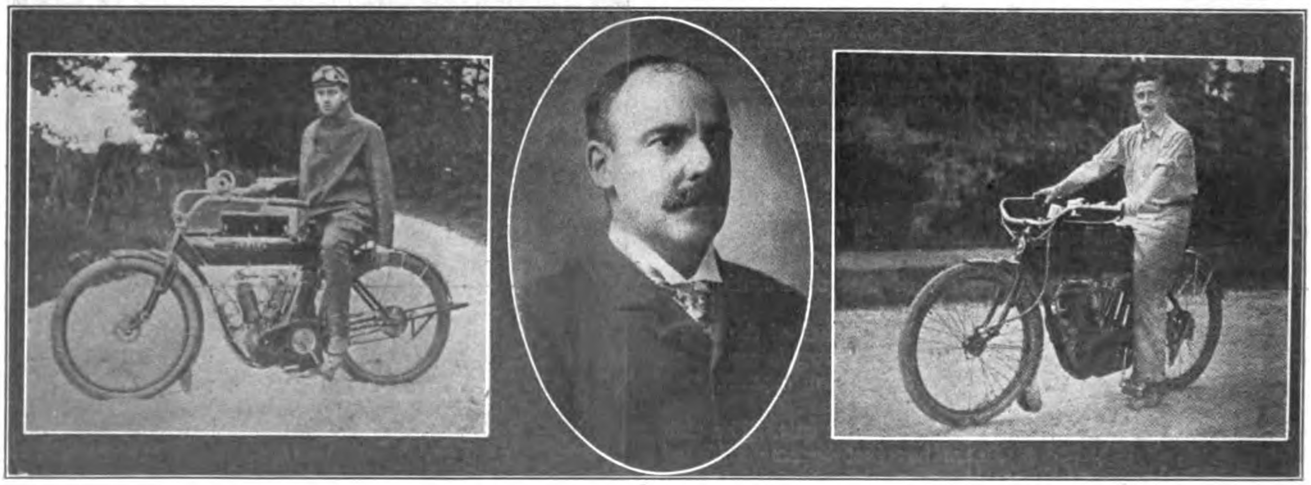
At a meeting held Saturday evening, Feb. 12, at the Hotel Dorset, East End, Pittsburg, the details for organizing and incorporating the club were arranged. A charter membership of fifty was decided upon and a membership committee was appointed. A committee was also appointed to obtain a charter and to procure quarters as soon as the membership committee rendered a favorable report. A motion was also passed making it the sense of the meeting that the club, when organized, would affiliate with the F. A. M. The first meeting was attended by W. E. Osthoff, as chairman; L. M. Johnson, who was elected temporary treasurer; A. G. Schmidt, S. W. Glenn, R. L. Glenn, F. B. Connell, F. E. Glenn, M. Zugschmidt, Geo. Foden and Lyle Geiger, temporary secretary.

BOSTON riders are making extensive plans to boom the sport in that section of the country during the coming year. Though the Boston Club, formed by a consolidation of the two former local clubs, has been in existence only a month, its members have shown a willingness and a determination to make things hum. Already three meetings have been held and most of the important committees have been appointed.

As typical of the real enthusiast the officers of the new club are good examples. Riders of the little "two wheelers" seem to draw together into a natural brotherhood. J. J. Fecitt, who was elected president of the club, is one of the early bicyclists. He still maintains his membership in some of his old clubs, but for the last five years he has been an ardent motorcyclist. He has been riding a wheel since way back in '69, when the first "high wheels" came out.

In point of time, J. P. Turner, who is one of the board of directors of the club, has Fecitt's age beaten by sixteen years. Mr. Turner rode his first race in 1860 on one of the original "bone-shakers." This was simply two wooden wheels with iron rims and a saddle between them. The time for the mile was 10 minutes and 40 seconds. Mr. Turner afterwards became one of the large manufacturers in England, and to his shop is credited the first ball-bearing high wheel in 1874, known as the "Emperor." At the other extreme is F. M. Wyman, secretary, who is but 22 years of age, and Carl Anderson, lieutenant, who isn't much older. Both of these officers have been motorcyclists for nearly five years. The youngest members of the club are Donald Pope, 15, of Brookline, and N. R. Gindrah, of Waltham, who is 16.

During the coming show there will be a motorcycle day, on which riders from all over New England will foregather to look over 1910 models. The clubs from Worcester and Providence will attend in a body.



Secretary Wyman, President Fecitt and Captain Howe, of the Boston Club.

"SNAP-SHOTTED" ONE SUMMER'S DAY ALONG THE GOOD OLD HUDSON

THESE four snap-shots were taken one day last summer on a road near Tuxedo, N. Y. The top left-hand picture portrays Leonard Herman, while to his right we have "Happy" Paffendorf, who enjoys the reputation of growing fat on motorcycle troubles. The lower left-hand cut shows the two above named enthusiasts treating Paffendorf's engine for an attack of appendicitis. The last photo is made up of W. E. Fischer, Paffendorf and Herman, all of Newburgh.

WALTHAM BOYS ARE PROGRESSIVE.

WALTHAM.—W. A. F. Estes, president of the Waltham Autocycle Club, which has a membership of about three score, advises us that there are now not less than 120 riders in that city. Twelve or fifteen machines have already been sold and the prospects of increasing the number of riders fully 50 per cent. during 1910 are exceedingly bright. The Waltham Club is arranging a schedule of races, the first series of which will be coducted early in the spring.

BALTIMORE CLUB AFFILIATED.

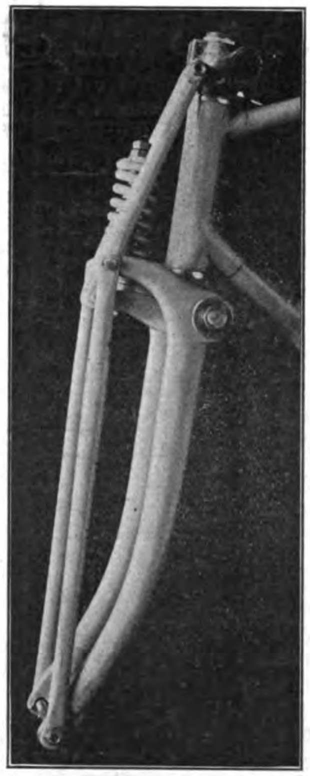
THROUGH the energetic work of President Howard A. French and other officers of the Baltimore Club, that organization is now affiliated with the F. A. M. The details necessary to bring about the affiliation were determined upon at the recent annual meeting, at which the following officers were chosen: Howard A. French, president; H. Matthew Gault, vice-president; Walter S. Hamburger, secretary, and William Wood, treasurer.

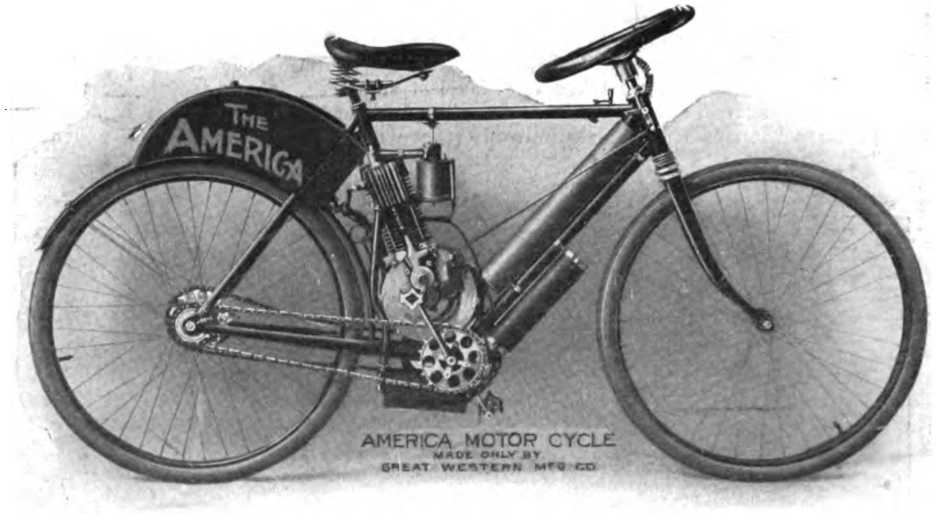
CLUB ORGANIZED IN WICHITA.

C. J. SHELDON is president; J. J. Branson, vice-president; T. D. Gardiner, secretary, and W. L. Lyon, treasurer of the recently organized Wichita Club of Wichita, Kan. The directors include the above-named officers and also G. C. Woodwell, C. D. Andrews and Claude Ludlum. Prospects for a large membership are very bright.

CHICAGO BOYS' SMOKER NEXT.

CHICAGO'S next "shindig" will be the smoker to be conducted under the auspices of the local club the fifth of this month. The affair of February 19 for members only was attended by one hundred riders, who are unanimous in their expressions of approval of the manner in which the arrangement committee did its work.





One of the pioneers, built years ago by the Great Western Mfg. Co.

A NOVEL FORK DESIGN.

A PATENT has been applied for this fork, designed by H. E. Pilgrim, of Hamilton, O., who writes that it had a most successful 5,000 mile trial on a twin machine last season. According to Pilgrim, he has combined in this device a strong and safe truss design, good spring qualities and the absence of side play. "In designing this fork," he declares, "I have followed the outlines of the rigid truss fork. I have made two separate trusses, one for the stem and one for the fork sides, and united them just below the head by running a shaft through both. The shaft has a driving fit into the upper truss. The lower truss has ball-bearing cups, and the adjustment is made by ordinary cones on the ends of the shaft, in that way taking up side play. The fork can be made to give as much as two inches play straight up and down. I am using a 4 inch spring, 1½ inch in diameter, and I can testify that I never broke a spring nor made any repairs of any kind, not even an adjustment of the bearings in the 5,000 miles I tried the fork last season."

* * *

ACCORDING to Neal Cochran, of Los Angeles, the popularity of the lightweight machine, for city use, is rapidly growing on the Pacific Coast. Several besides Cochran are owners of mounts of this type.

Neal Cochran, on his Lightweight.

TRI-CARRING IN CALIFORNIA.

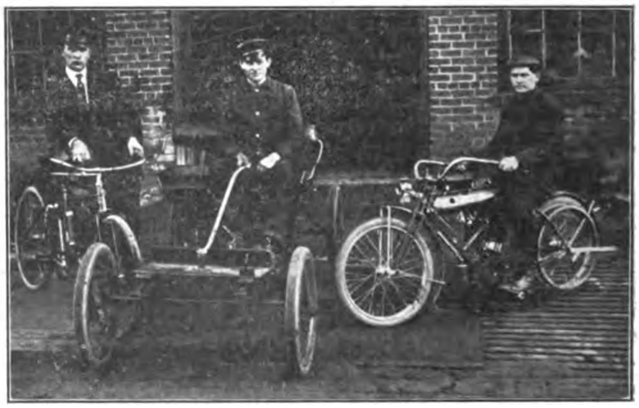
I DOUBT whether any one gets more pleasure out of the sport than we do in making use of an N. S. U. twin tri-car of 7 horsepower. It being the only car of the kind in our city, it attracts much attention. We have the non-convertible car, with 2-speed, free engine, fan-cooled, magneto, ignition, front seat with long coach spring. The two-speed and free-engine device is in the rear hub and, oh, what a relief from the old way. You just give the pedal a kick, run free engine, then slowly pull the lever back, and the car begins to move; finally you throw the lever to the high gear and away you go. Last Sunday we made 102 miles between 10 a. m. and 6 p. m., loitered by the roadside for luncheon and had dinner at San Jose. We prefer the fore-car to the side-car. It may not be as sociable, but it gives us many advantages, having a prettier appearance, being easier to handle and less liable to punctures in the rear tire. I am trying to interest others and expect to see many other lovers of the sport fall into line before the season is over.

Oakland, Cal. L. L. M. SALSBURY.

* * *

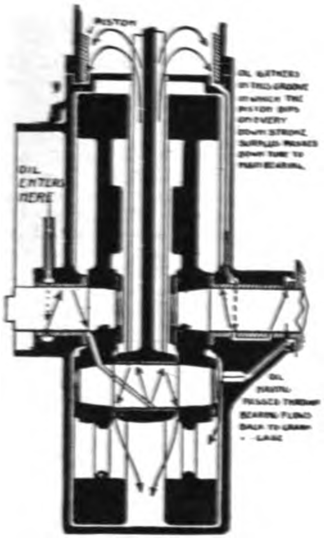
TO EXTEND CLAN EXCELSIOR.

ARRANGEMENTS are now being made to organize branches of the Clan Excelsior, of Chicago, in every city or town where Excelsior machines are sold to any extent. It is planned to have all these organizations affiliated with the F. A. M. The headquarters of the clan will be in the Excelsior Building on Michigan avenue, Chicago.

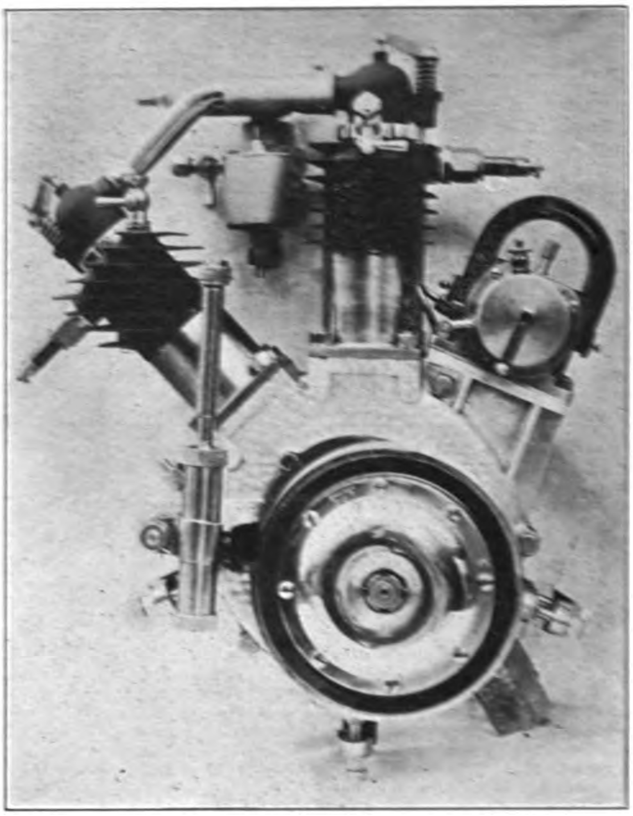


A. A. Jordan, G. C. Carter and B. T. Lapp, of Atlanta.

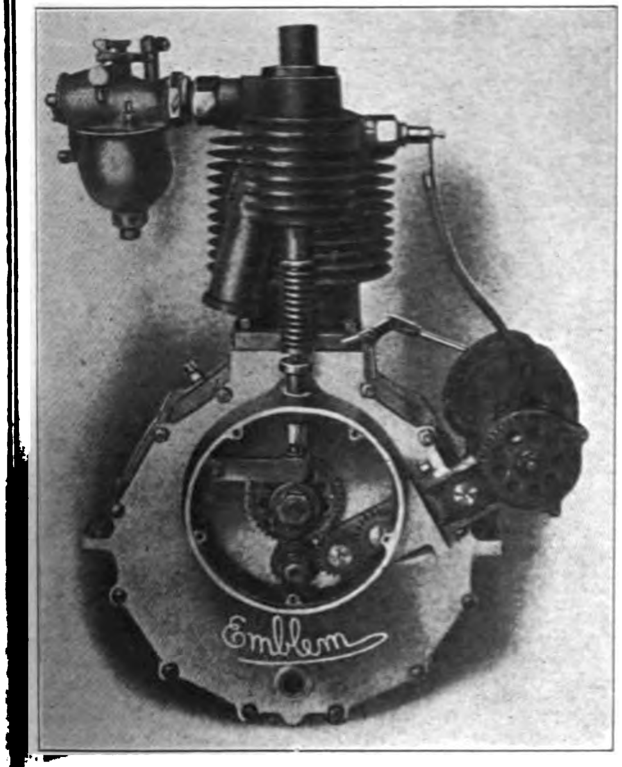
DETAILS OF 1910 MACHINES


PISTON
OIL GATHERS IN THIS GROOVE IN WHICH THE PISTON DIPS ON EVERY DOWN STROKE. SURPLUS PASSES DOWN TUBE TO MAIN BEARING.
OIL ENTERS HERE
OIL HAVING PASSED THROUGH BEARING FLOWS BACK TO CRANK-CASE

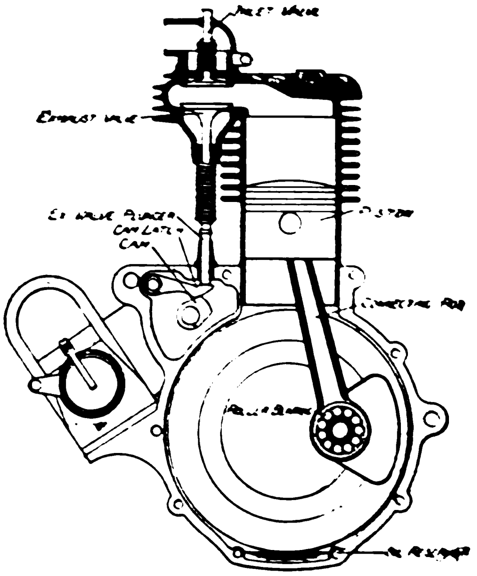
Excelsior Lubricating System.



N. S. U. Twin Motor.



Emblem Engine.


INLET VALVE
EXHAUST VALVE
EX VALVE PLUNGER
CAM LEVER
CAM
PISTON
CONNECTING ROD

M. M. Engine.

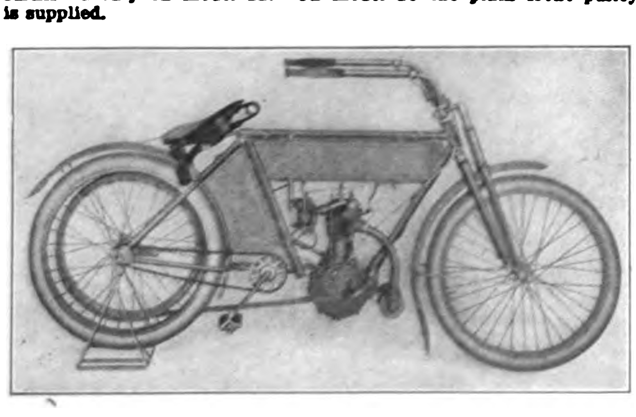
MAKERS AND SELLERS

ORIGINALITY DISTINGUISHES 1910 MODELS OF THE AMERICAN

GUARANTEED for three years, the 1910 American, built by the American Motor Cycle Co., 1370 Wells street, Chicago, has a long and low frame. This, with its unique seat post style of construction,, together with a triple multiple coil spring seat, large pneumatic tires, long, wide handlebars fitted with flexible anti-jolt ten-inch rubber grips, a new pneumatic spring fork and 56-inch wheel-base, makes the American easy to ride and a well-balanced machine. The cylinder is made of special gray iron containing a correct amount of vanadium, making a tough, close-grained metal. The cylinder and head are cast integral. The valve chamber is part of the cylinder, but has an air space between itself, and cylinder; both have large, thin cooling flanges. The exhaust port is very large, as are also the exhaust and inlet valves. The cylinder is bored, reamed and ground to accurate size. Between the process of reaming and grinding, it is heat treated, so that it will retain its finished shape. The piston is made of hard gray iron heat treated and ground to a true round surface. To further eliminate any danger of loss of compression and to take care of wear, the makers fit three lapped joint concentric piston rings. These rings are finished by grinding and are cast separately to give a hard, elastic, long-wearing surface. The connecting rod is of I-beam section drop forged, and receives the same heat treatment while being finished as the cylinder and piston. It is very light and strong. The fly-wheels, of solid web-style of construction, are securely fastened to the tool steel-hardened shaft, which is made with a turned head, which fits into a turned seat and is held in place by rivets. This method of fastening is entirely original. The gears are made from solid bar stock and are a part of the shaft, not keyed or pinned on. The bearings are all of special hard bronze bearing metal.

The motor bases are made of aluminum nickel alloy of great strength, are in two halves, with an oil-tight joint, and equipped with a separate vent and oil retainer which returns the oil that works out of the bearings to the base on the pulley side of the motor. On the timing side, the shaft and gears are completely covered by an oil-tight cam and gear case, making a very neat and clean appearance. The outside of the crank case is finished with a smooth polished surface, and is not left rough and unsightly. The timer and ignition contact maker is of special hard bronze, platinum tipped and supplied with a steel stud where it comes in contact with the cam. The timer is controlled by a steel rod; on Model 25 it is operated from the grip, while on Model 22 it is operated by a small lever directly in front of the saddle. The contact screw is of hard bronze, platinum tipped, with lock adjustment. The timing case can be taken out and cleaned without changing the adjustment or timing of the moter. The exhaust valve is of nickel steel, drop forged, made by first turning on center, then heat treated, then ground both stem and seat. It is then ground into the motor head with emery flour. The arrangement is very simple. By removing the inlet valve dome by one screw it is possible to lift out both intake and exhaust valves. The intake valve is mechanically operated by a rocker arm; the muffler is located in front of the motor, with a simple cut-out which is operated by the foot.

Transmission is by a ⅞-inch 28 degrees "V" belt. Model 22 is equipped with a variable speed front pulley. This is particularly suitable when one is touring in a country of variable altitudes, as by a very simple adjustment the gear can be raised or lowered at the will of the rider to suit changing road conditions. This pulley is furnished only on Model 22. On Model 25 the plain front pulley is supplied.



American 4 h. Roadster, Model 25.

Lubrication is by force pump without any valves to operate. In addition to the force pump there is a sight glass so arranged that one can see at any time whether the charge of oil is being fed into the motor with the pump. The working of this pump is very simple and can be operated from the saddle while riding. In forcing the oil into the engine it is divided in parts to the cylinder crank shaft and bearings, gradually settling to the bottom of the crank case, where the revolving of the flywheel keeps all working parts of the motor in a continual bath of oil. Control is from the handlebar. On Model 25 the control mechanism is made of steel nickel-plated rods, with ball joints throughout, which presents a very attractive appearance. On Model 22 Bowden wire control is used throughout.

The copper tank has two compartments; one holds eight quarts of gasoline and the other a half-gallon of lubricating oil. The filler holes are large, with nickel-plated screw covers. In addition to the regular outlet the company supplies an extra valve control outlet. By simply turning the valve the rider has free access to your gasoline supply without detaching the feed pipe. The battery, coil and tool case have been assembled in a dust and rain-proof case, which fills up the entire space between the seat post mast and the mud guards, where they are securely fastened, thus affording protection to the batteries, spark coil and all the wiring. A partition divides the box, allowing space at the right-hand side for a full kit of tools.

The fork is made with a long coil spring in connection with an air-cushion tube, which is claimed to act as a perfect shock absorber. At the fork tips there are two steel-forged shackles arranged on sets of ball bearings. This type of fork, with large tires, multiple coil spring saddle and soft, flexible grips makes an excellent combination. The stand is automatic. It can be instantly dropped and the machine backed up to support it, with the rear wheel free from the ground. When in an upright position it makes a parcel carrier, or, with the addition of a cushion, a seat for an extra rider. It is not attached to the axle of the machine, but to special bolts, so that the rear wheel can be taken out and leave the machine standing. The stand is part of the regular equipment.

* *

JOHNS-MANVILLE CO. CHANGES LOCATION.

DUE to fast increasing business, both the Chicago and Baltimore branches of the H. W. Johns-Manville Company have outgrown their present quarters, and they are now being moved to new locations, with more room. The Chicago branch, now on Randolph street, will hereafter be located in the four-story and basement building at Nos. 27-29 Michigan avenue, in the block between South Water and River streets. With 32,[illegible] feet of floor space, offices, store and stock rooms will [illegible] under one roof. A full stock of J-M products will be carried, thus assuring prompt shipments. The Baltimore office, store and warehouse [illegible] be located at No. 30 Light street. Here the company will have considerably more room than before and will be in much better position than ever to give all orders the very best attention.

* *

CAPACITY NEARLY DOUBLED.

THE addition which has been in process of construction for three months for the American Motor Company of Brockton, Mass., is completed. The installing of machinery in the addition is now in progress. The company expects to be making motorcycles in the new part early this month. This means a big increase in the volume of business. The company is at present putting out eighty motorcycles a week, and when the addition is ready it will have a capacity for turning out 150 machines weekly. The addition is two stories in height and 100 x 50 feet.

* *

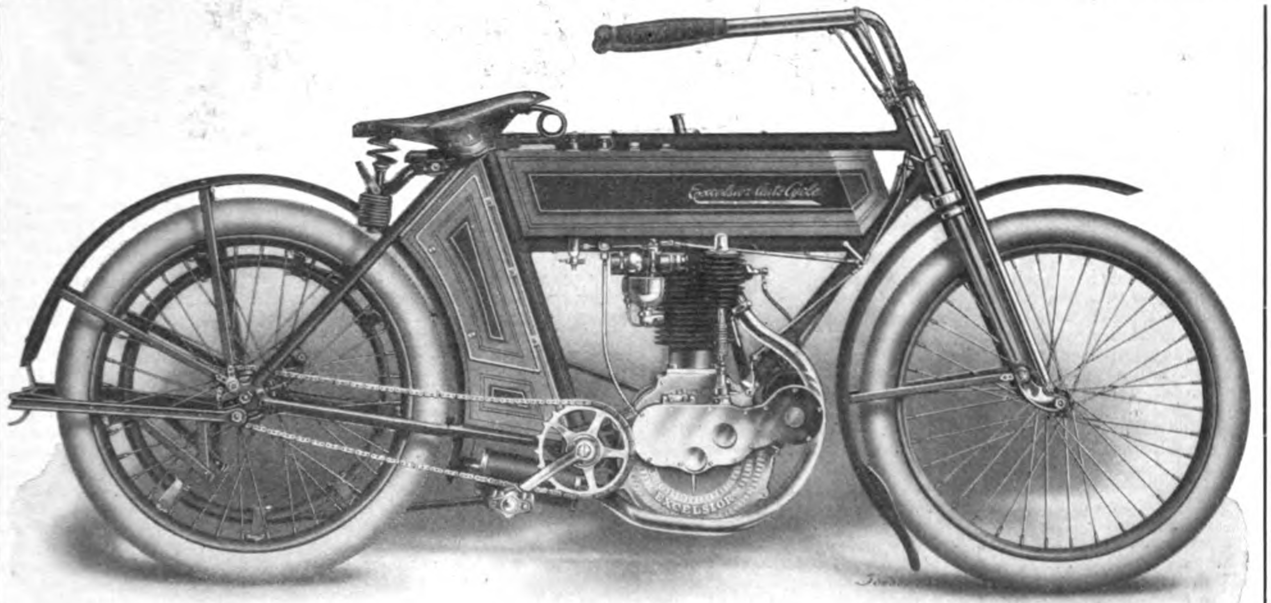
NEW AGENCY IN CINCINNATI.

CINCINNATI is to have another exclusive motorcycle agency. Two local enthusiasts, Clarence Rossiter and Ferris Harker, announce that they will open a first class establishment early this month under the name of the Motorcycle Sales Company, located at 227 East Fourth street. The fleet two wheelers have made a place for themselves in "Cincy" and the prospects [illegible] coming season are very encouraging.

* *

Ralph M. Webster, of South Bend, Ind., has taken the agency for the Harley-Davidson for St. Joseph county.

EXCELSIOR AUTO-CYCLE



A MOTORCYCLE IS AN INVESTMENT

It may render liberal dividends in pleasure, satisfaction and service or make constant assessments for repairs and maintenance.

FOUR EXCELSIOR AUTO-CYCLES

used in the Circulation Department of the Chicago Examiner took the place of eight horses and buggies and rendered constant, unfailing service seven days in the week regardless of weather or road conditions, from April, 1909, to February, 1910, at a total cost of less than $15.00 for repairs and accessories.

Thousands of EXCELSIOR AUTO-CYCLES are rendering equally good and often better service wherever motorcycles are known.

WISE BUYERS BUY EXCELSIORS—WHY NOT YOU?

Catalog E10 gives full details, single and double cylinder models, battery and magneto ignition.

EXCELSIOR SUPPLY COMPANY

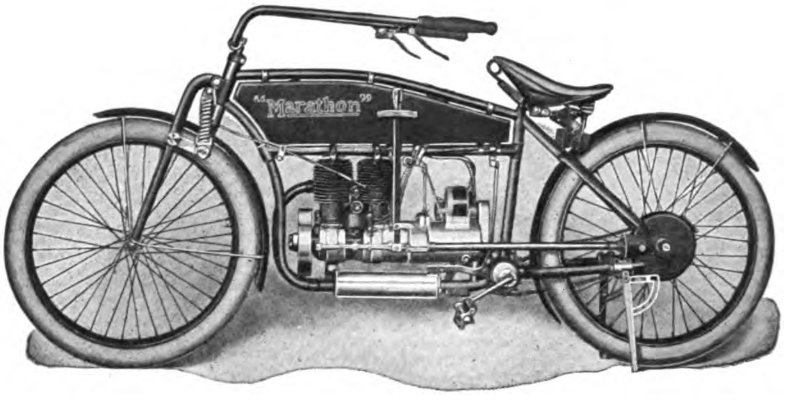
Established 1876

233-237 Randolph St., Chicago, Ill.

Eastern Representative
STANLEY T. KELLOGG
2312 Broadway, New York

Pacific Coast Branch
361-363 GOLDEN GATE AVE.
San Francisco, Cal.

A TWO-CYCLE, SHAFT-DRIVEN TWIN ENTERS THE AMERICAN MARKET.



BEARING the name Marathon, a valveless, two cycle, 7 h. twin machine has just been placed on the market by L. E. Rhodes, of Hartford, Conn., who has a wide reputation for building high-grade machine tools and special machinery. The Marathon, designed by C. E. Baker and E. M. deLong, comprises many radical departures from present-day constructural practice. The transmission of the Marathon is by shaft drive, with a free engine through a multiple disc clutch and a two-speed sliding gear giving a ratio of 3½ to 6½ to 1. Control of the free engine, carbureter, magneto and emergency brake is from the handlebar, which is long, supported by two stems and fitted with Morgan & Wright rubber grips. The forks are of a perfected spring type of special design. The brakes include an Eclipse Coaster and a contracting band brake acting on the drive shaft. Ignition is by Bosch Magneto and carburation in a Planhard of new design. The oiling system comprises a gear pump operated by the crank shaft. The tank is a double compartment affair of oval design constructed of 20-oz. copper. It has a capacity of 2½ gallons of gasoline and two quarts of oil. The wheel base is long, 60 inches, and the 28-inch wheels are fitted with 2½-inch Morgan & Wright tires.

The Marathon frame has what may be called a loop cradle, although straight bars predominate, all the tubes being united with outside joints. The fork has both a vertical and a fore and aft motion. It consists of a single fork which at its upper end is attached to a sliding block on the frame head; at the lower end of the head are placed hinged links which are fastened to the fork sides near the crown. The load strain is taken by a pair of helical springs unenclosed, which are fastened to the fork crown and the rear link mounting.

The motor is a twin-cylinder, two-cycle, with a two-port crank box compression, a 2⅝-in. bore by 2½-in. stroke, developing 7 h. and is very flexible. The pistons are close grained gray iron castings, with extra high deflectors, each piston supporting three rings, two at the top and one in the center, which acts as a Pitman pin retainer, allowing the Pitman pins to oscillate. The Pitman pin is a hardened and ground hollow steel pin ⅝-in. in diameter, with a ⅜-in. bore that carries the oil from the cylinder wall to the upper bearing of the connecting rods, which are made of Government bronze of H section design. The muffler is underneath the motor, forming part of the frame and is said to be very silent and efficient.

The gas coming from the tank passes through the carbureter and is distributed to the crank box by a specially designed distributor, and then forced through a passage cast on the cylinder to the upper combustion chamber where it attains 75 pounds cold air pressure. Thereupon ignition takes place, forcing the piston down, the gas passing out at the lowest point of the piston travel into the exhaust. The flywheel, attached to the end of the crank shaft and running at a very high velocity in a plane at right angles to the line of travel, has a gyroscopic effect in keeping the machine balanced while in motion.

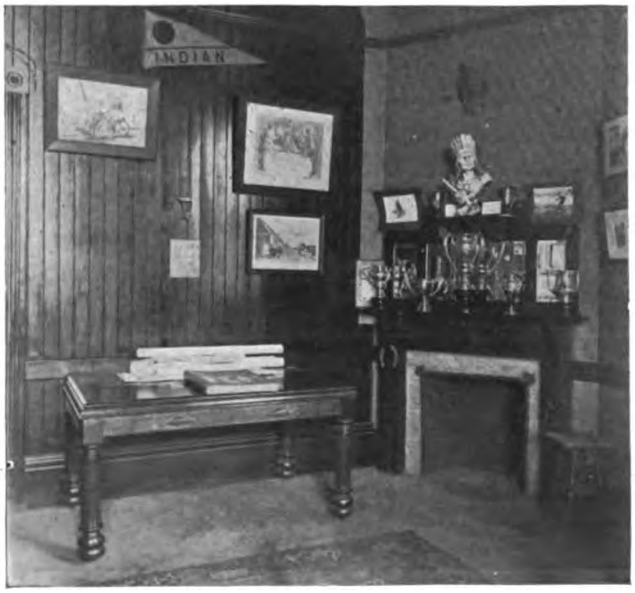
The multiple disc clutch is a 17-plate metal to metal device, relieving the gears of excessive shock, and giving to the rider an absolute free engine. It runs in oil and is operated from the handlebars, affording a free engine at any time without change of gears. The two-speed sliding gear transmission gives 3½ to one on the high and 6½ to one on the low. The gears are of ¾-in. face, ten pitch, and are made of heat-treated vanadium steel. The drive is by a solid steel shaft ⅞-in. in diameter, running on three standard annular ball bearings. The final drive shaft is enclosed in a separate tube and may be removed without disturbing the frame.

The "Marathon" has an Eclipse, cork inserted, armless coaster brake acting on the rear wheel for ordinary use, and for the emergency brake the designers have provided a contracting band brake, raybestos lined, acting on the drive shaft, operated from the handlebars, giving the rider absolute control of his machine at all times. The crank shaft is a single piece of hammer-forged, oil tempered, vanadium steel with cranks set at 180 degrees.

The oiling system is one of the special features of the Marathon, the crank shaft bearings being supplied by a gear pump driven directly from the end of the crank shaft. The cylinder piston and connecting rods are lubricated by an automatic drip.

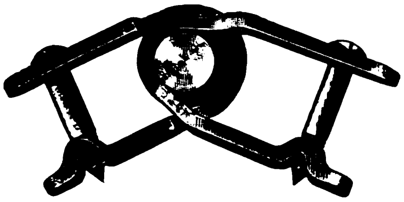
The general equipment is first class in every particular, in keeping with the rest of the machine and includes a Twentieth Century gas light and generator, Bullfrog horn, Mesinger tool bag, B. & S. tools, 20-in. telescope pump and a stand of special tubular construction. The Rhodes factory is at 32 Union place, Hartford, Conn.

HARRY J. WEYMAN, of 1203 Bedford avenue, Brooklyn, has taken on the Marvel for Greater New York. The Motorcycle Sales Company, the organization of which is noted elsewhere, will handle the same machine in Cincinnati.

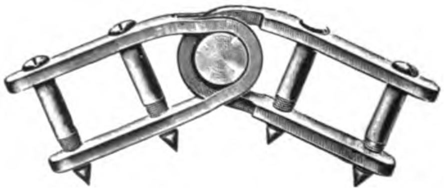


A Corner in George M. Hendee's Office.

THERE are very few riders of belt-driven machines who have not experienced more or less fastening troubles. In this connection, it is interesting to announce that the new N. S. U. belt fasteners, of which a very large variety is offered, are so designed as to prevent the usual accidents, worry and delays. The N. S. U. fasteners are



made in sizes ranging from ¾-in. to 1⅛-in. with two or four screws according to requirements, and they are equally serviceable for leather or rubber belts. In either case they are easily fixed by piercing a vertical hole in the middle of the belt and as far from



the end as the fastener will allow, and then screwing the bolt securely home. Provided they are fitted to the right kind of belts they will not tear out nor absorb any power. Given ordinary care they will show practically no wear. The N. S. U. Motor Company, 206 West 76th street, New York, recommends the use of the fasteners with four screws for machines fitted with under-geared pulleys or for high-powered mounts carrying large-sized pulleys.

WHEN YOU'RE ALL IN, DOWN AND OUT *(Ragtime)*

Not elegant, but mighty expressive. Bet you've felt that way many a time. No? Never pushed and carried 175 lbs. through 10 inches of sand? Never got stuck in the mud and couldn't get started? Guess you never rode a motorcycle. What?

But it's good-bye now to that old bogey. Buy an M. M., fitted with the new internal expanding band clutch. It is the simplest free engine pulley you ever saw or heard tell of. There's no question about how it will work. It has been used for years in automobile construction. We've simply adapted an old device to a new use.

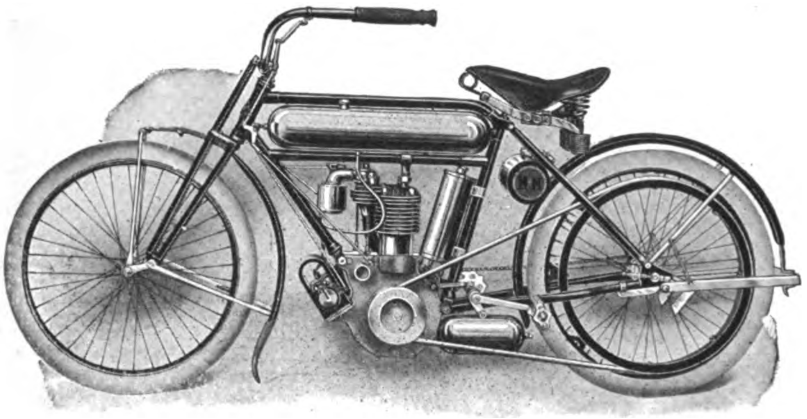
Until you use one once you can't appreciate what a boon a clutch is. On the M. M. you start your engine on the stand by pedalling. Then throw out the clutch, push the machine forward off the stand by swinging the body, slip in the clutch and you are off. An M. M. rider doesn't leave the saddle after once starting the engine. The M. M. automatic stand (which raises and latches of its own accord) enables him to throw in the clutch and move off without any effort whatever.

How does that strike you? Think it's worth while joining the ranks of M. M. riders to benefit by these things we're doing for them? It is this and a dozen other exclusive features like it that puts the M. M. so far ahead of its competitors. Better send in your order right smart if you want quick action.

AMERICAN MOTOR CO., 716 Centre St., Brockton, Mass.

Member Motorcycle Manufacturers' Association

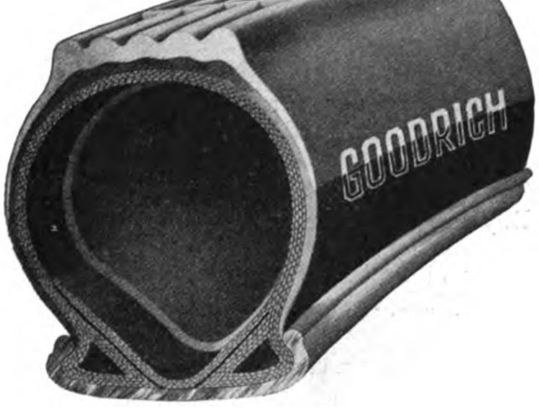
Distributors: Boston, 173 Huntington Ave.; New York, 10 W. 60th St.; Buffalo, 895 Main St.; Chicago, 2127 Michigan Ave.; Dallas, Tex., M. M. Building, So. Ervay St.; Los Angeles, 1034 So. Main St.



M. M. 4 h.p. Magneto Single. Roller bearing motor, 1⅞" valves mechanically operated, emergency fuel tank, automatic oiling system, automatic stand, etc. Price $225.

GOODRICH TIRE WITH NEW TREAD.

THE B. F. Goodrich Company, Akron, Ohio, offers a new style of tire in the Goodrich white heavy tread. It is of the corrugated type, with very deep corrugations crossed by ridges at short intervals. Because the tread is practically flat, wear is evenly distributed, and no single corrugation gets all the rub, thus leaving the most used part without safeguard against skidding. The method of construction has many advantages. It gives resilience and elasticity so that the ridges bite in, grip the riding surface and prevent skidding. An extra thickness of rubber is used in the tread where the wear is the heaviest. Four plies of fabric guarantee durability. A request for the 1910 catalogue will also place your name on the mailing list for "The Clincher," a monthly magazine very interesting to riders.



TRADE JOTTINGS.

DANVERS.—W. J. Walker & Company have just taken on the Reliance agency for New England. S. J. Hennigar, of the firm, has been sent out on the road in the interest of that machine. Walker reports that this year is certain to prove a banner twelvemonth for the Reliance machine, with its excellent two-speed and free engine device. The Company will open a branch store in Wakefield, Massachusetts, about the middle of the month and will place A. W. Powers in charge.

HARRY WEBER, formerly with Herz & Company, New York, is now in charge of the Southwestern Sales District of the Stewart & Clark Manufacturing Company. Mr. Weber's headquarters will be in Kansas City. L. L. Banford, who represented the company at the Chicago Show, is its Cleveland man. The Stewart & Clark folks are preparing to inaugurate an active sales campaign in the motorcycle field.

"THE commercial aspect of motorcycling is the phase to study," declared George Hendee, recently. "Business houses are buying large numbers of the machines for salesmen and collectors, and in almost every instance a trial means further orders after the economy of the motorcycle has been demonstrated."

BALL AND COMPANY have been awarded the contract for furnishing the city of Norfolk, Va., with two Indian machines for use by the police department. The Board of Control decided to purchase the Indian upon the recommendation of Major Kizer, chief of police.

JOSEPH BUCKINGHAM is now in charge of the motorcycle department of the Weaver-Ebling Automobile Company, 2230 Broadway, recently appointed Harley-Davidson representatives and distributors in Greater New York.

OWING to the necessity of increasing its office force, the American Stepney Spare Wheel Company has removed its headquarters from 1773 Broadway to the Goodrich Building, 1780 Broadway, where much more room is available.

A. J. McCOLLUM has been succeeded as head of the Miami Cycle & Manufacturing Company's motorcycle department by W. J. Grube, of Delaware, Ohio.

WM. M. BANGHART has accepted the Herring-Curtiss agency for Bound Brook, N. J., and its immediate vicinity.

IN FACTORY AND SALESROOM.

A. FREED, Pacific Coast agent for the Thor, has moved his headquarters and salesroom to much larger quarters at 1438 Market street, San Francisco, the old home of the firm before the fire.

PLANS have been drawn for the Emblem Manufacturing Company for a large addition to its present plant at Angola, N. Y. The new structure will be four stories in height and 75 x 40 feet in size.

AS the result of an increase of business, the Giles Mercantile Agency, of Colorado Springs, has just purchased an Indian to assist in the work of the collection department of the company. The machine was purchased from W. L. Lucas.

YALE machines are now sold in El Paso (Tex.), by the Freeman Cycle Company. The Allen Cycle & Arms Company, of the same city, represents the Excelsior Supply Company.

CARL V. SEAHOLM and S. C. Weidenhomer have organized the Motor Bicycle Company, with headquarters at 438 East Main street, Galesburg, Ill., where they have the Harley-Davidson agency.

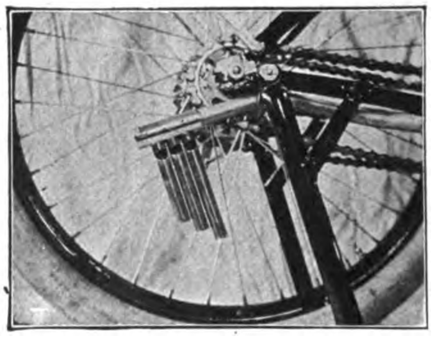
JUST a little correction—it was stated in our Feb. 15 issue that the Motorcycle Equipment Company had the largest factory building in Hammondsport. This paragraph was intended to mean that the aforesaid concern had the most extensive motorcycle accessory office and sales room in that city—and, in fact, in the entire United States. The Motorcycle Equipment Company's structure is built of concrete, being two stories high and 30 x 115 feet in size.

DOUBLE SHOW AT THE GARDEN.

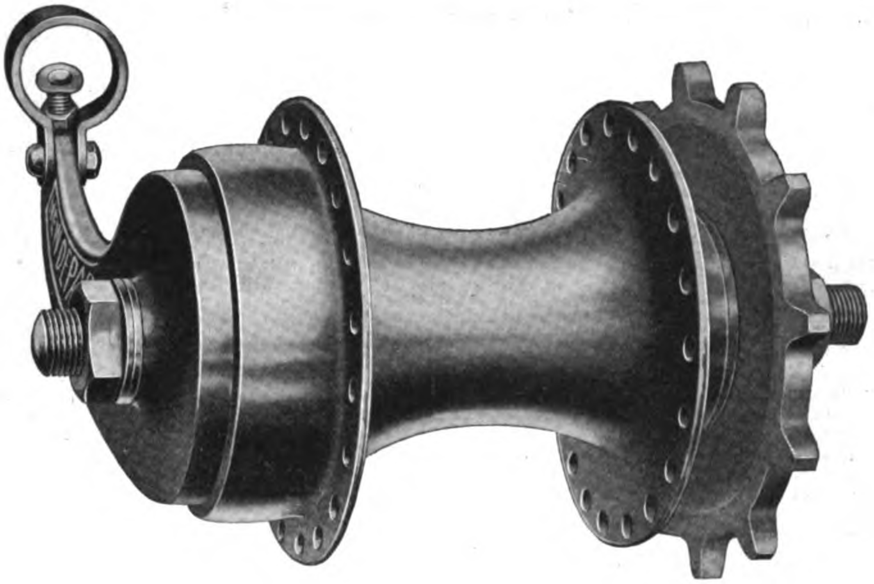
ANNOUNCEMENT has just been made by the Licensed Association of Automobile Manufacturers that they have found a very satisfactory solution of the New York Show problem. The Madison Square Garden Show will take the form of a double exhibition in 1911. The pleasure car portion of the show is scheduled to begin on Saturday, Jan. 7, and to terminate on Saturday, Jan. 14. The doors will again be opened on Tuesday, Jan. 17 and the commercial vehicle part of the exhibition of the licensed cars will be conducted until Tuesday, Jan. 24. The show officers announce that they will provide accommodation for at least twenty-seven motorcycle exhibitors and for about 300 motor and accessory manufacturers. This disposition of the difficulty ought to work out well for the makers of the motor-driven two-wheeler, who will thus be able to display their product to much better advantage.

CHIMES FOR MOTORCYCLE USE.

WE illustrate herewith the "Perfection Whistle," manufactured by the F. B. Widmayer Company, 2312 Broadway. This device is fitted to the end of the muffler pipe and, already extensively tried on 1909 and 1910 twin Indians, has demonstrated its value. The whistle, which has a unique and penetrating sound that can be heard at a great distance, is operated from the handlebar. It can be attached to twin Indians, R. S., Thor and similar machines without the slightest trouble and in a few minutes. This device, while working exceedingly well on twins and guaranteed to do its work when fitted to machines of that type, is not adapted to singles. The Widmayer folks announce that fact so that no one may be persuaded to buy one of these whistles with a view to fitting it to a single-cylinder machine. The Perfection Whistle retails for $3 or $3.25 postpaid to any part of the United States, and ought to be a good seller.



R. J. HART, Hartford, Conn.—You can probably obtain what you require from the New Era Auto-Cycle Company, 22 Dale avenue, Dayton, Ohio, or the Minneapolis Motorcycle Company, 517 South Seventh street, Minneapolis, Minn. If your machine happens to be an Indian, the Hendee people could make this change for you.

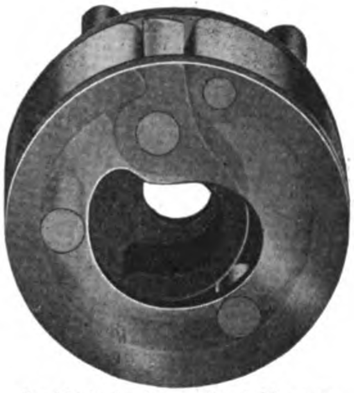


NEW NEW DEPARTURE

Internal Expanding Band Coaster Brake for Motorcycles is

Band Brake and Lever

POWERFUL
PRACTICAL
POSITIVE



Band Brake showing top plates holding parts in position—transparent view

The New Departure is the last word is coaster brakes for 1910 motorcycles. Radical improvements have been made, bringing it abreast of motorcycle advancement. It is dependable under all circumstances, strong enough to stall the highest powered motors; cannot bind, lock, "feed up" the pedals or cut into the hub. Every test proves claims made for it and every user declares its unfailing efficiency.

When asking your dealer about the "NEW" New Departure, do not fail to tell him you want to see the internal expanding band coaster brake.

Write for Folder

THE NEW DEPARTURE MFG. CO.

Coast Brake Licensors **BRISTOL, CONN.**

CORRESPONDENCE

DOCTORS HAVE THEIR SAY.

Disagree as to the Best Type of Transmission.

EDITOR MOTORCYCLE ILLUSTRATED: Many of your readers are evidently interested in the best methods of traveling on their professional visits. From a letter to a medical journal from an Arkansas brother, I was led to invest in a motorcycle, and my only regret now is that I did not know of their great value before. The speed and comfort with which visits in the country can be made is simply wonderful. Practically no expense in operation, oil and gasoline costing me less than one-fourth of a cent per mile. A good machine goes up the steepest and longest hills in this hilly country with ease. They take up no more room when not in use than a bicycle, thus saving the garage expense of the auto. They are much easier to understand and handle than the auto.

To a prospective purchaser of a motorcycle I would say, don't buy a belt machine. The belt will invariably stretch and then slip. Also do not try to make speed records. Fifteen to twenty miles an hour is speed enough. And fifteen minutes' time after each ride in cleaning the machine is time well spent. Get a good machine from a reliable dealer, use reasonable care in handling it, and I really think it is one of the best investments a doctor can make.

B. A. SOUDERS, M.D.

Winterset, Ohio.

EDITOR MOTORCYCLE ILLUSTRATED: I have ridden a motorcycle for the past three seasons and I enjoy it very much. I can make my calls in the country in one-half the time required when using the team, and it never tires, no matter how hot the day or how long the drive. The expense of running it is very low, and when not using it, during the winter months, it eats no hay nor oats. A chain machine is much more satisfactory, in spite of what an agent may say of the different methods of taking up the slack of a stretched belt. I have used the same machine for three years and taken long rides with friends who used the belt machine, and they have trouble when the belt gets a little old or gets wet. I have purchased but one new chain in running nearly 6,000 miles. I have never regretted adopting the motorcycle in my practice, as it makes long rides a pleasure and keeps me in good physical condition, besides giving me much more time for office work, recreation and study.

JAMES E. TAYLOR.

Ovid, Mich.

Dr. James MacCoy is another enthusiast on this subject, though he sounds a few words of warning, as follows: Don't buy solely because the dealer tells you his machine is the best. Get a disinterested old rider and pay him to look the prospective machine over and listen to him. Be sure you get the machine you have examined, never minding the one like it. Two machines of same make may differ wonderfully in performance. If you're a careless fellow, let motors alone unless you want to throw out money and have lots of cuss words inside. I'm no spring chicken—over 70—and *know* that for steady use in country the *good* horse is the standby, like the good wife and the good dog; but often the bicycle will come handy, and quite often the motorcycle. Each has its place, and all are really useful; don't neglect any. Night riding with a motor is unsafe. The glare of oncoming autos will blind you and you're liable to get a hurtful spill. Give me a belt every time instead of chain. Don't ask how fast it will go, but be satisfied to use your head.

JAS. MACCOY.

Joliet, Ill.

HAS FAITH IN LIGHTWEIGHTS.

I NOTICE in MOTORCYCLE ILLUSTRATED of Feb. 1 and 15 two articles about lightweights. Johann Puch built two machines of this type, one a single cylinder model of 3¾ h. with a bore and stroke of 70 mm. by 100 mm. and weighing less than 85 pounds with the tanks empty. This machine last season repeatedly beat 8 h. twins in races on the Continent. Although very fast, this model is well suited for ladies. The twin weighs 99 pounds and is rated at 3½ h., having a bore and stroke of 68 mm. by 70 mm. This model, when intended for racing, weighs only 75 pounds. The transmission on both types is "V" belt. When one considers that the Austrian roads are no better than the average American highway and that these lightweights were put on the market several years ago, the twin in 1906, and have not been redesigned, it certainly proves that they are able to stand hard knocks.

Summerville, S. C. J. A. G. PENNINGTON.

CRITICISES WASHINGTON DEALERS.

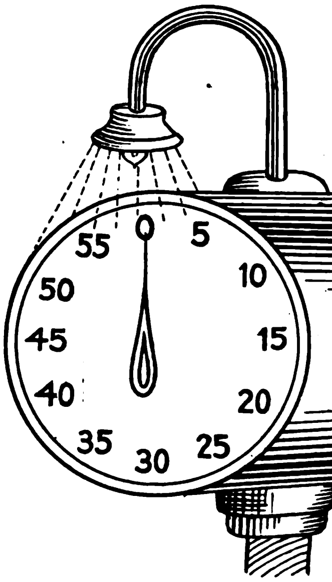
THERE have been made numerous criticisms of the exhibit of motorcycles at the Automobile and Aeronautical Show held recently in the National Capital. As this is such an ideal place for motoring, with good streets and many miles of fine macadam roads through beautiful parks, I think, as do many of my fellow-riders, that the agents here should show the public that they mean business. The one agent who exhibited a well-known make of machine seems to have made quite a favorable impression. Let us hope that the other agents will wake up before spring and become a little more enthusiastic.

J. C. MILLER.

Washington, D. C.

ILLUMINATING A SPEEDOMETER.

I ENCLOSE you herewith a rough sketch of a little lighting device which I attach to my speedometer. It consists of a piece of curved tubing soldered to the speedometer and a small reflector pointing down to the dial. The wires lead back to a set of batteries which I carry on the luggage carrier and a switch just above the grips on the handle bars. It is quite handy while riding at night.



MILFORD G. FOX.

Cincinnati, Ohio, Feb. 11.

BREAKS GROUND FOR ADDITION.

THE Hendee Manufacturing Company broke ground on Feb. 22 for the new structure which it is to erect to meet the demands of its rapidly increasing business. This building will be about 250 feet long and five stories high, constructed of brick in the best possible manner. The work will be pushed as rapidly as possible, and it is expected to have the addition ready for use in the early summer.

* * *

NEFF & MALONE, of Monroe avenue, Rochester, N. Y., have just taken on the N. S. U. They also handle the Merkel-Light line. The N. S. U. company has also established an agency at Ogdensburg, N. Y., where Charles Oakley now represents that concern in St. Lawrence and Franklin counties.

* * *

R. O. SAWYER, Harrisburg.—Peugeot Frères, Paris, France, is the name and address. For sake of clearness you had better add "Automobiles et bicyclettes," as they have been established since the early days of the bicycle.

* * *

ABNER S. BAKER, Fort Morgan, Colo.—Rubber and canvas belts require no dressing whatever. It is a good plan, however, to give them an occasional wash in gasoline, while a sponge with water preserves the rubber if it gets dry and cracked.

Reliance

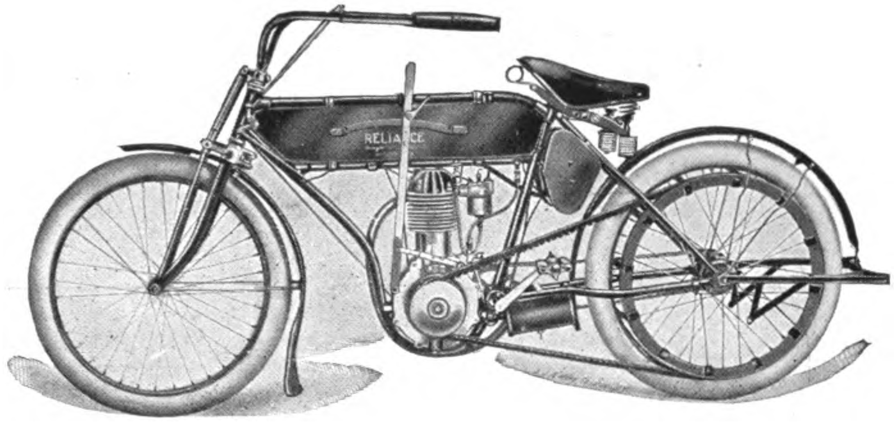
Seventh Successful Season
of the
Reliable Reliance

THE ONE NEW THING IN MOTORCYCLES AT THE CHICAGO SHOW

A COUPLE OF FEATURES:

Truss SPRING Fork, the most flexible and enduring made.

Two-Speed and Free Engine Transmission Gear, the FIRST practical, compact arrangement made. Largest Clutch, Largest Gears and Largest Wearing Surfaces. One lever control.



With this transmission the rider can start from standstill on the steepest hill. An absolute necessity for the construction of the perfect motorcycle. Full details in our catalogue, let us send you one.

RELIANCE MOTORCYCLE CO.
OWEGO, N. Y.

Member Motorcycle Manufacturers' Association

QUESTIONS & ANSWERS

A MYSTERIOUS LOSS OF POWER.

IN the late fall I found that my motor ran much better and seemed to have more power when I had the muffler closed than when it was open. This naturally started me thinking what the cause could be. I found that my exhaust valves were very dirty and that there were dents in the wearing surfaces as though they had been seating on some hard substance such as emery grains or small pebbles. I have seated them properly and when I lately tried the motor it ran better with the muffler open. Could the uneven seating of the exhaust valves have been the cause of this coincidence. J. WEIMER.

Westfield, N. J.

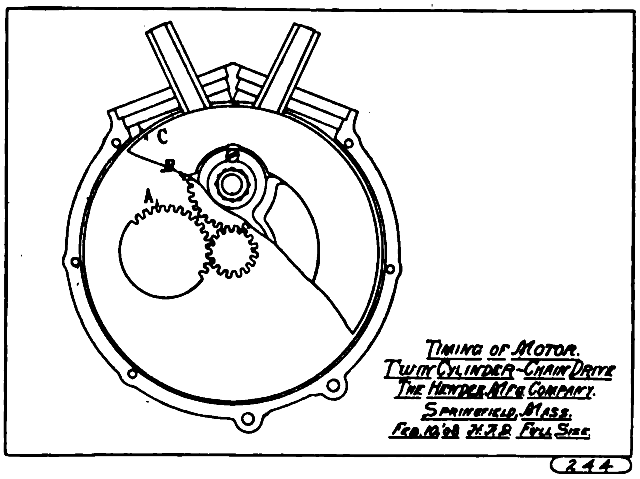
Certainly a badly pitted or scaled exhaust valve will cause a serious loss of power. Valves should be ground in regularly, and it strikes us that there is also a possibility of your muffler being blocked up with burnt oil, etc. The bad seating of the valves would cause loss of power whether the cut-out were open or closed. This latter feature would have no bearing on the question at all, unless the muffler had a lot of back pressure, which might give a "damper" action to the badly seating valve, although we have never come across a case like this. Again, supposing that the adjustment of the mixture were very delicate, the leaking valve might let in some air on the intake stroke when the cut-out was open and not do so with the cut-out closed. Of course one should note that with a really efficient muffler, no back pressure should result and there should be really no perceptible increase of power when the cut-out is open. The utility of the cut-out is over-rated in the eyes of the general rider.

TO TIME A 1908 TWIN INDIAN.

WILL you please print a sketch showing how to assemble a 5 Indian twin cylinder, 1908 model, battery ignition, so that the timing may be correct. G. G. J.

New Platz, N. Y.

To time a 1908 twin cylinder chain driven machine place the two gears in their proper place in the motor base, with the marks on the gear wheels exactly corresponding with similar marks to be found on the base, as shown at "A" and "B." Then drop the flywheel carefully into place with the mark on its rim exactly corresponding with the mark on the motor base, shown at "C." Next carefully lift the flywheel up again to make sure that neither of the gear wheels has moved when the flywheel dropped in. Then if the flywheel is carefully dropped back in place again you can be sure that the gears are in proper position.



MISSING FIRE; OVERHEATING.

I HAVE a twin which will not fire equally in both cylinders. If I adjust the carbureter so that front cylinder will fire, rear will miss, and vice versa. I have a 3½ Armac which has always given good service, but recently it began to overheat and preignite. I have taken down the engine scraped out carbon, and looked for roughness inside the cylinder, but to no avail. STALLED.

In the case of the twin, it is likely from the meager data given that the gasoline level is wrong. The gas should come about 1/32nd of an inch below the jet and with this particular carbureter one can often alter this by bending the bridge to the float upwards. Placing the float higher will lower the gasoline level. Your trouble with the 3½ h. machine which overheats may be due to worn valve stems or tappets, and there is a chance of the muffler being stopped up. Again too rich a mixture may be the cause, or the valves improperly ground.

LIGHTWEIGHT STALLS ON HILLS.

I HAVE a 1½ h. lightweight, which does fine work, but acts strangely at times. If I approach a bad hill I usually speed up all the machine will go. For the first fifty or seventy-five feet it seems that the engine isn't trying to pull; it will almost stop. Then if I pedal two or three strokes the engine will pick up and pull nicely up a steeper and longer part of the hill without any more help. On another occasion I started to ride to a town about 25 miles distant. I had just cleaned and oiled my single cylinder Indian and put in new batteries. Machine started fine, and for about eight miles ran perfectly. Then it commenced to miss fire every time I struck a hill, and finally stalled. I looked it over carefully, tried the spark, found plenty of gas, and tried to ride again. It ran well until I struck the next grade, then stalled again. PUZZLED.

Your lightweight trouble may be due to some stoppage in the carbureter which clears the moment the machine is speeded up. When the speed falls low the inertia may cause any slight obstruction to get into the jet of the carbureter. Also sluggish valve action caused by weak valve springs could account for this sudden failure on hills. The trouble with your Indian might also be from dust in the carbureter, as you can doubtless see from the above, particularly from what you say about hard starting. You had better test the valve lift here as well, but we are more inclined towards the reasoning that carbureter trouble is at the bottom of it all. Clean those carbureters in the dull winter evenings!

TROUBLE AFTER A FALL.

A FEW days ago I fell from my R-S twin, and since then I have been unable to get the front cylinder to fire. The compression is good, spark O. K., the carbureter properly adjusted and both inlet and exhaust valves properly seated. MORRISON FRYER.

Nashville, Tenn.

Are you sure about your spark plug? Fasten it to the secondary wire and lay it with the outer screw post against the cylinder and then ascertain whether you get a spark at the proper time. If not, then the ignition circuit is broken somewhere or your timing is incorrect. Again, is your mixture right? The fall may have caused your mixture, by reason of a damaged front cylinder intake, to absorb more air than necessary.

ALL SORTS OF PROBLEMS.

(1) WHAT do you mean by "driving with retarded ignition?" (2) My machine is a Wagner Tourist, single. What is the easiest and best way to tighten up the spokes? Is there a wrench for the purpose, or will I have to take off the tires?

(3) Is there anything gained by changing the tire from front to rear?

(4) What have you found to be the best for cleaning carbon from the piston? Is "Decarbonizer" injurious to the machine (or engine)? I used it about three times last summer. When an engine is kept running in sufficient oil of the best grade, provided by the manufacturers, how often should the engine and piston be cleaned out?

(5) Should the tires be taken off and kept in a damp place, say, a cellar, in preference to a cold, dark barn, during the winter season?

(6) After the machine has been started on the road, should the spark be advanced full, and should one control the speed with throttle or gas to get the greatest amount of power and speed at the lowest possible expense?

(7) My batteries leaked after they were in use but a few weeks. I packed them securely, but in putting in the last one I noticed the lining broke. How can this be remedied? Would rubber sheeting be good for this purpose? J. H. MARK.

Sedan, Minn.

(1) Driving with retarded ignition means driving with the spark advance set at the slowest speed, to put it plainly. What really

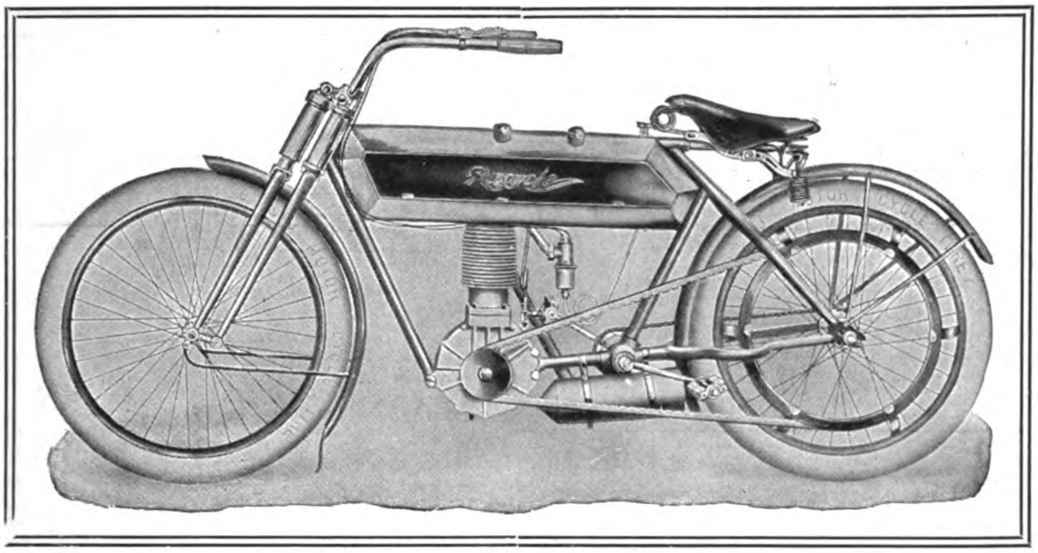
(*Continued on page 32.*)

THE RACYCLE

Four Horse-Power Engine.

Improved Musselman Coaster Brake

IS distinguished by its handsome frame design, clear-cut lines, comfortable riding position, a large four horse-power single cylinder engine, the Musselman coaster brake, imported carbureter, a combination tank, forks of the barrel and plunger type, a positively silent muffler and numerous other features certain to enhance the riders' enjoyment of the sport.



THE 1910 RACYCLE MOTORCYCLE

SEE IT IN SPACE 579 AT THE BOSTON AUTO SHOW (MARCH 5th to 12th)

Embodies the **Best** and **Latest** Ideas in Motorcycle Construction in this Country and Europe, and We Can Prove it. There is beauty, simplicity and strength in this machine, with a frame having only 20 brazed joints and constructed of 1¼-inch 16-gauge tubing. The engine, firmly suspended at three points, has a bore of 3¼, and a stroke of 3⅝ inches and presents a large cooling surface, all the more efficient because the flanges are finely cast. The motor is of the roller-bearing high-speed type and has a piston displacement of 30.50 cubic inches. Ignition is by means of batteries.

Write for Full Particulars and Agency Proposition. **Closing Agencies Everywhere Every Day.**

Imported English Carbureter

Flat or V Belt Transmission

THE MIAMI CYCLE & MFG. CO.
MIDDLETOWN, OHIO
Members M. M. A.

happens is that the spark occurs when the piston is past the top dead center and thus the engine runs slower, as the time between the recurrence of the spark is prolonged.

(2) The way to tighten the spokes is to use a "nipple key" and tighten up the nipples which come at the head of the spokes as the outside of the rim. Great care should be taken to keep the wheel true and to "let out" the spoke on the opposite side to the one being tightened. Experts take out the wheels to true them up and put them in a holding device so that the slightest deviation from the "true" can be corrected, but an amateur can use the fork as a guide and carefully watch the space between rim and forkside when revolving the wheel free, of course being sure that the wheel is set right in the center of the forks. The tires need not be taken off for this job, and a very small magneto spanner sometimes fits the nipples.

(3) The changing of tires from front to rear is for the reason that the rear tire wears more quickly, owing to the greater load which it carries. Thus when a rear tire is getting worn, it will generally be found that the front one is in first class condition and far longer life can be given to the set of tires by changing about.

(4) We do not believe in decarbonizers, at any rate for motorcycle use. They were invented to do away with the long job of dismounting cylinders in motorcars. Now, as the motorcycle has a readily accessible cylinder the best plan by far is to dismount the cylinder, "cut" the carbon with paraffin and take off the deposit with any kind of a husky scraper. This is better than experimenting with decarbonizers, which sometimes have an irritating habit of getting the valve-heads and guides "bunged up." A good engine, if not over-lubricated and not driven with too rich a mixture, should not require cleaning of the piston and cylinder head more than about once every thousand miles or so.

(5) Tires are actually preserved by keeping in a damp, dark place during the winter months. This prevents the rubber from drying and cracking and is worth trying if the machine is stored a long time.

(6) The proper and only way to drive is by spark advance with the engine throttled down. Regulate the speed for all purposes with the spark advance and leave the throttle for hill climbing and emergencies. In this way you drive economically, more silently and do not overheat the engine. This also means longer life to both the engine and bearings, less carbonizing trouble and less wear on tires and other parts.

(7) Rubber sheeting is the very best material for lining battery cases, as no "shorting" can occur through this protection.

MOTORCYCLE MART: IT SELLS THE STUFF.

FOR SALE OR EXCHANGE

FOR SALE—Crouch loop frame 3 h. p. engine, good as new. Tires in good shape. Bargain at $100.00. Ernest A Dakin, Wilton, Maine.

FOR SALE—Merkel single, Bosch magneto, standard speedometer, cavalry saddle; used little; looks new, in excellent condition. Will make 58 miles per hour. The gold medal endurance run machine, $160. P. Stranahan, 36 Whither street, Boston, Mass.

FOR SALE—1908 Indian 3½ h. p., new rear tire, never used. Engine just from factory, overhauled, with 1910 valve gear, never run; bargain at $125. First class condition. R. E. Wilder, 527 Thomas avenue, Johnstown, Pa.

FOR SALE—1909 M. M. Battery Special. The whole machine, including finish, tires and engine, is in first class condition. Price, $135. C. A. Shaw, Groton, Mass.

FOR SALE—At $75, single Indian; new bushings and rings; A1 condition. Also 5-h.p. twin (special), belt drive, a bargain at $90. Address J. C. Wirt, Smethport, Pa.

FOR SALE—A dandy. M. M. 7 h. p. twin, double grip control, spring fork, large Mesinger saddle, speedometer, large headlight and generator, rear light, horn, pump, luggage carrier, large tool box, extra inlet valve and plug. First check for $175 takes it. A Bourgeois, No. 4 Coombs street, Middleboro, Mass.

FOR SALE—1908 Indian Twin, fitted with $50 B. & C. two-speed device, two new cylinders and pistons; enamel, tires and whole machine in fine order; reason for selling, have position and cannot use it. Will sell for $150; cost $325. A. Cohen, 1627 Eleventh avenue, Altoona, Pa.

FOR SALE 1909 Twin Indian just overhauled by Hendee Mfg. Co.; extensively equipped; no further use, have auto. M. A. Cordner, 68 Fairview avenue, Jersey City, N. J.

FOR SALE 1908 Indian Twin, not run 2,500 miles; 1909 G & J tires, not run 800 miles; machine in good condition, $120.00. Address Y., care of MOTORCYCLE ILLUSTRATED, 299 Broadway, New York.

FOR SALE—Twin cylinder, 5 h. p., 1909 model, loop frame Indian; used three months; in excellent condition. Extras: B. & C. two speed and free engine transmission, Prest-O-Lite gas tank with 20th Century lamp. Price $225.00. Frank Runyan, Jewell, Kans.

FOR SALE Having just won automobile in a contest, will sacrifice Pierce 4-cylinder machine, run less than 500 miles; shaft drive, Bosch magneto, Bailey tread tires; fine running condition. Starts on one-quarter pedal. Not a mark on it. $225 to quick buyer. Box 234, Troy, Pa.

FOR SALE—1909 M.-M., magneto twin, like new. Henry Muller, 1141 Park place, Brooklyn, N. Y.

FOR SALE—1910 Puch 7 h. p.; practically new; run only 300 miles; equipped with stand, 80-mile speedometer, horn, and two extra pulleys and belts. Cost $400.00; $300.00 takes it. Ill health reason for selling. Address J. Pennington, P. O. Box 135, Summerville, S. C.

FOR SALE—1907 M. M., $65.00; 1907 M. M., $75.00; 1907 Armac, $75.00 Motorcycles taken in exchange for the new M. M. 4. Box No. 3, Readville, Mass.

FOR SALE 1909 7 h. p. V-belt Twin M. M.; Bosch magneto; extras; fine running order; tires like new; $150. Charles Krebs, 51 William street, Newark, N. J.

FOR SALE—1909 Thiem motorcycle, completely overhauled by manufacturers, with cyclometer, lamp, stand, luggage carrier, and spring fork; fine condition; $125.00; already crated. J. L. Lenihan, Lakeville, Minn.

FOR SALE—2¼ h. p. attachment, new; price $25. Leon Dakin, Notch, Me.

FOR SALE—1909 3¼ h. p. Thor motorcycle, Bosch magneto, perfect condition; cost $250; sell $190. Address Fred Kolloff, 103 Fulton street, Auburn, N. Y.

AGENTS CARDS, ETC.

FOR SALE—2½ h. p. '09 Erie attachment for bicycle complete. Aluminum base motor, sight feed oiler, combination tank, best V belt, large efficient muffler, coil, etc.; all O. K. In fact, this outfit is as good as new. Full directions. First check for $35 takes it. Dr. D. E. Lewis, Bennington, Vt.; agent for M. M. motorcycles.

WANTED—Motorcyclists to know that we carry a full line of spare parts for "CURTISS," "ROYAL PIONEER," "R.-S.," and "INDIAN" Motorcycles; as well as the best variety of highest accessories manufactured. Reliable repairing done on the premises. Tiger Cycle Works Co., 782 Eighth Avenue, New York. 'Phone, 1268 Bryant.

MOTORCYCLES thoroughly overhauled and repaired; agents for Thor and Excelsior motorcycles; supplies and sundries. Brazenor & Ruderman, 1041 Bedford avenue, Brooklyn, N. Y.

FOR SALE—Fifteen new and second-hand motorcycles, run from 50 to 1,500 miles; four different makes. Write me. N. H. Bedard, Stockton, Kansas.

SECOND-HAND M. M. BARGAINS—Exhaust Whistles, Hand Idlers. M. M. Branch, 895 Main street, Buffalo, N. Y.

FOR SALE—1907-08-09 R-S, Greyhound and Curtiss singles. Need money to buy 1910 stock machines. Correspondence solicited. James Finkle, Dalton, Mass.

IF IT IS a second-hand machine you want, write to A. D. Cook, 111 Monroe avenue, Rochester, N. Y.; Curtiss Agency.

BARGAINS in accessories. Always on top. We have the largest stock and lowest prices in America. Write today for catalogue. Motorcycle Equipment Co., Hammondsport, N. Y.

STOLEN: REWARDS OFFERED

REWARD $25 EACH—Stolen Oct. 26, two 1909 loop frame twin Indians. Red, 21A454. Green, 20A642. Pioneer Printing Co., 307 Howard street, Spokane, Wash.

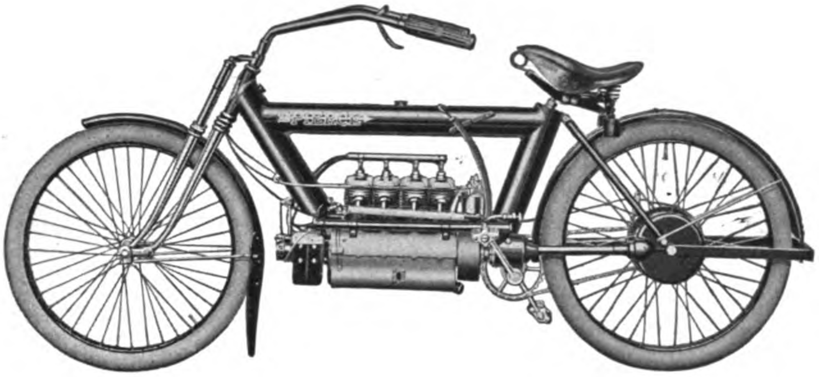
$25.00 REWARD—Stolen, THOR single cylinder. Engine No. C. 7509; Frame No. 9, 1801 gray, V bars. Smith Machine Co., El Paso, Tex.

MISCELLANEOUS

WANTED—Capital to manufacture up-to-date motorcycle and aeroplane engines; by a mechanic who has made a thorough study of the foreign practice in light engine construction, and who has had unlimited experience in motorcycle and automobile manufacture. For particulars address "Capital," care MOTORCYCLE ILLUSTRATED.

PIERCE
Vibrationless
Motorcycle

TWO SPEED



FREE ENGINE

COMFORT —1— POWER —2— SPEED —3—

Thousands of riders are clamoring for these 3 attributes in a Motorcycle

ARE YOU?

The Pierce Four Cylinder
AND
The Pierce Single Cylinder **HAVE THEM!**

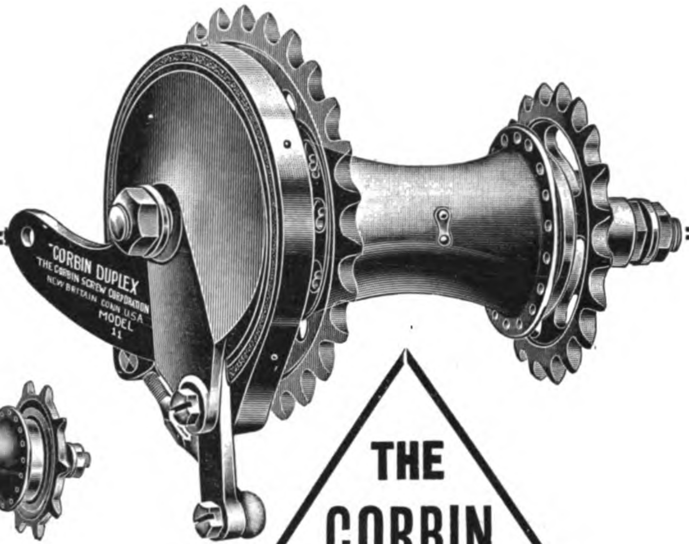
IT'S TIME TO INVESTIGATE

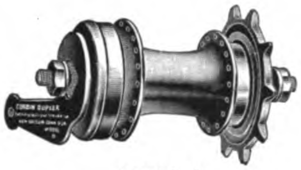
Our Catalogue gives complete description

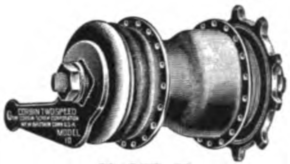
THE PIERCE CYCLE COMPANY

BUFFALO, N. Y.

PACIFIC COAST BRANCH, OAKLAND, CAL.




MODEL 8.


MODEL 10.

THE
CORBIN
BAND BRAKE

NOT AN EXPERIMENT BUT A PROVEN SUCCESS, THE

CORBIN

BAND BRAKE

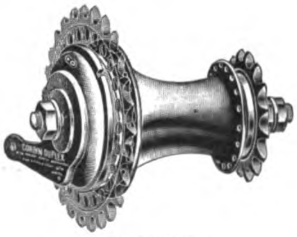
For Belt or Chain Drive Motorcycles is Superior to All Others in

Principle, Strength and Reliability

C-O-R-B-I-N Spells Both Quality and Workmanship

WAREHOUSES.

106, 108, 110 Lafayette Street, New York; Northwest Corner Eighth and Arch Streets, Philadelphia, Pa.


MODEL 9.

AGENTS AND RIDERS

Handle and Use a Brake Whose Success Has Been Demonstrated by Thousands. Quotations on Request.

THE CORBIN SCREW CORPORATION

LICENSED COASTER BRAKE MANUFACTURERS

THE CORBIN SCREW CORPORATION OF CHICAGO, 107-109 Lake Street, Chicago, Ill. **NEW BRITAIN, CONN., U.S.A.**

Also Users Know

Diamond

Motorcycle Tires

Los Angeles, Cal., Dec. 10, 1909.

Diamond Rubber Co., Los Angeles, Cal.

Gentlemen:—I take pleasure in voluntarily telling you of the satisfaction I am having with the use of your new motorcycle tire. For some five months past I have used a "**Diamond**" tire on the rear wheel of my six horse power N. S. U. motorcycle, which, by the way, is one of the very heaviest and fastest touring machines made. During most of the entire time I have carried an extra person on tandem attachment over this tire. The distance so far is over 2,500 miles. The raised tread shows little wear, and it seems as though it might take double this mileage to even wear the tread smooth. It matters not how hard the tire is blown up; it has great resiliency and rides very easy. I have never had it lose traction or skid at any time. There have been no punctures, it being tough enough to apparently resist being punctured.

Comparing all my past experience of five years riding different makes of tires, I certainly can say that the new "**Diamond**" motorcycle tire is certainly a wonderful production, and greatly improves the pleasure of motorcycling.

Yours very truly,
S. L. LYON.

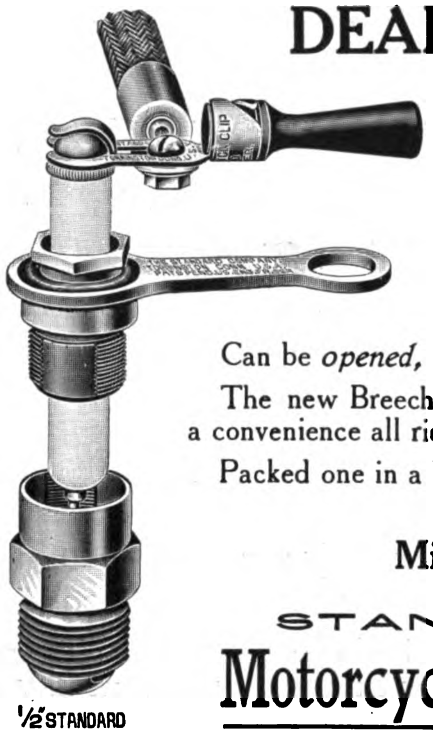
The
Diamond Rubber Co.
AKRON, OHIO

Diamond
Motor Cycle

STANDARD-EQUIPMENT

FOR THE

MOTORCYCLE MANUFACTURER, DEALER AND RIDER



The Breech Block Plug

A COMBINATION

SPARKER PRIMER COMPRESSION RELIEF

One sixth turn *opens* or *closes*. The push of a *finger* locks tight to 2,000 pounds.

Can be *opened*, *cleaned* and *closed* in *four seconds*.

The new Breech Block Clip with Insulated Handle prevents shocks and is a convenience all riders will appreciate.

Packed one in a box with new clip-screw-nut and directions.

PRICE

Mica, $1.25 Porcelain, $1.00

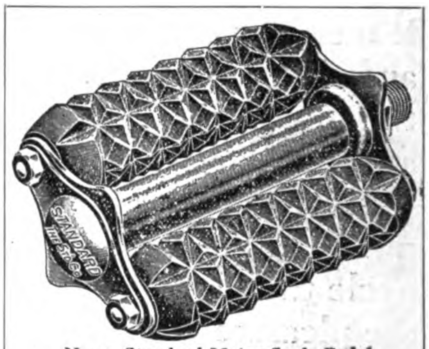
We recommend mica plug for motorcycle use

STANDARD

Motorcycle Pedals

Wide Tread Pedals combining *Comfort*, *Utility* and *Reliability*. Constructed of the *Best* materials by *Skilled Mechanics*.

PRICE, $3.00 PAIR



No. 3, Standard Motor Cycle Pedal

Emergency Axles, Sager Motorcycle Toe Clip, Diamond E <E> Spokes. Bridgeport, and Standard Pedals. Sager and Standard Toe Clips.

Send for our Descriptive Circulars

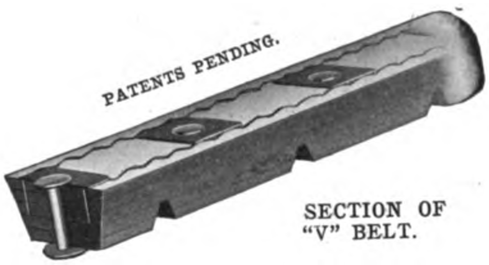
THE STANDARD COMPANY

Torrington, Conn., U. S. A.

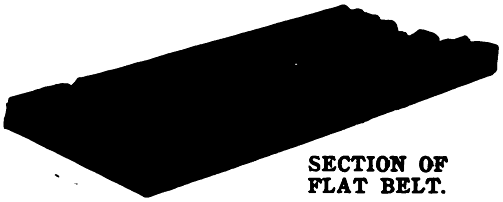
"SHOEMAKER" MOTORCYCLE BELTS

("V" SHAPED OR "FLAT")
ARE RECOGNIZED
AS THE

"STANDARDS"



SECTION OF
"V" BELT.



SECTION OF
FLAT BELT.

by Manufacturers—who are adopting them
by Riders—who are testifying to their merits

HAVE *YOU* SENT FOR THE BOOKLET THAT TELLS ALL ABOUT THESE BELTS? IF NOT—WRITE TO-DAY.

APEX BELTING CO., 242 Chestnut St., Philadelphia, Pa.

When you strike rough road you feel the difference. Ask any rider the Facts about

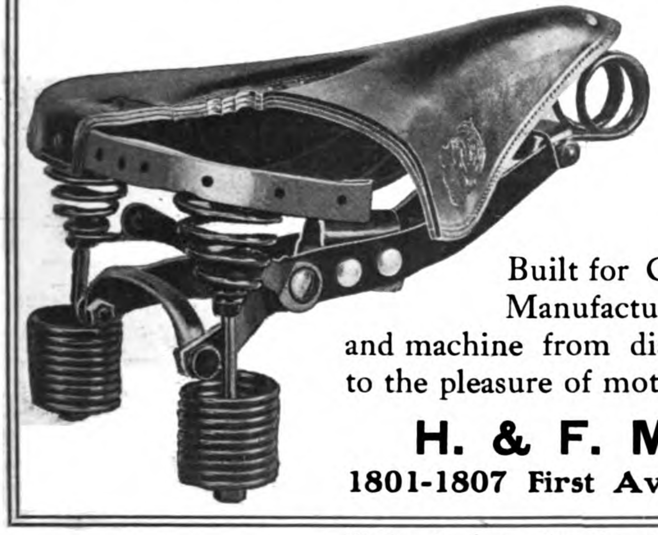
MESINGER

Mesinger Cavalry No 8

"CAVALRY"

AND

"STANDARD"



They are all fitted with

Patented Shock Absorbers

Built for COMFORT, tested and approved by many Manufacturers of Motorcycles. They save the rider and machine from disagreeable jolts, prevent side-sway and add to the pleasure of motorcycling.

H. & F. MESINGER MFG. CO.,
1801-1807 First Ave., - - - NEW YORK

R-S

THE 1910 SEASON STARTS OFF WITH A BIG WIN FOR

At the crack of the Gun in the 10 mile DEAD HEAT Race Seymour "R-S" started at a terrific pace. At 5 miles he led and at the finish Seymour was perhaps a few inches ahead. The judges declared the race a tie.

THE TRIUMPHANT R-S MOTORCYCLE

LOS ANGELES EXAMINER SAID:

This was the first real Motorcycle Race seen in Los Angeles in years.

AT LOS ANGELES COLISEUM, JANUARY 31, 1910.

Seymour (R-S) wins 4 mile amateur event in the good time of 3:43½.

And Rides a sensational 10 mile DEAD HEAT with one of the Pacific Coast's Best Riders who rode a known fast machine. Time for 10 miles 8:19 2-5 or an average of a little over 49 seconds to the mile.

"IT'S THE MACHINE"

READING STANDARD CO., Reading, Pa.

THE GOODRICH

WHITE HEAVY TREAD

Motorcycle Tire

¶ The Shape of the Tread *distributes wear evenly.* No single corrugation gets all the rub, leaving the part of the tread most used without a preventive of skidding.

¶ The Tread has a *third more rubber* than any other make.

¶ It has *resilience* and *elasticity.* "The ridges bite in grip the riding surface and *prevent skidding.*"

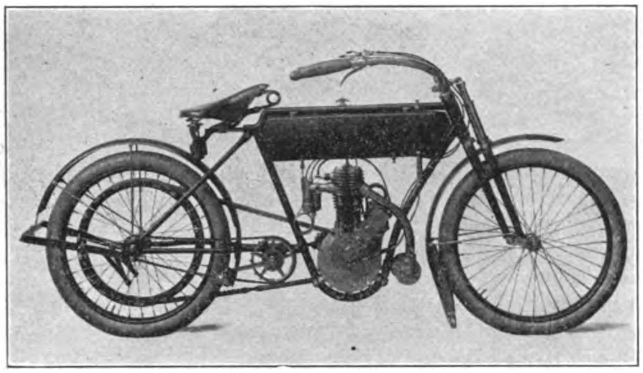
¶ *Four Plies of Fabric*—one more than any other make—guarantee durability.

¶ For Enduring Wear "The Goodrich White Heavy Tread Motorcycle Tire is a Motorcycle Tire built like an Automobile Tire."

THE B. F. GOODRICH COMPANY, Akron, Ohio

The THIEM **1910 MODEL "E"**

4 H.P. $3\frac{1}{4} \times 3\frac{1}{2}$ Ball Bearing Motor



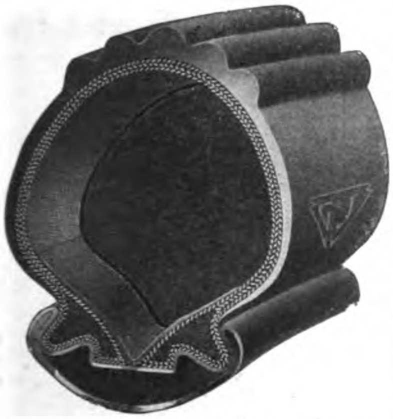
Many new and unique improvements. Model "E" represents a substantial advance in the Motorcycle Art. The evolution through which we have passed has emphasized features and improvements that are now embodied in our Model "E" that easily makes it the most improved Motorcycle made anywhere.

The Improvements are: Full Ball Bearing, Mechanically Operated Valves, Precision Oiler in addition to Pump in Tank, Magneto gear driven, special Spring Fork, Low saddle position, means for adjusting the Belt, and many minor improvements.

AGENTS WANTED EVERYWHERE.

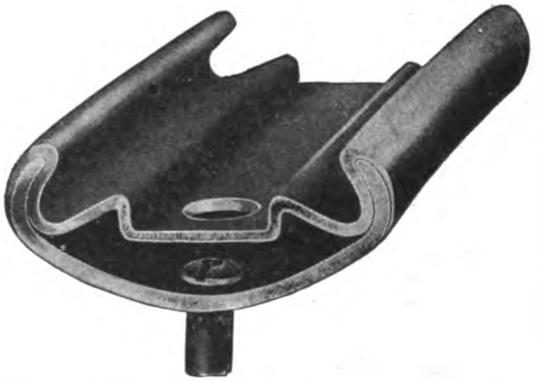
THIEM MANF'G CO., Box 498, Minneapolis, Minn.

G&J TIRES



Stick to Quality

¶ It doesn't pay to experiment with unreliable motorcycle tires even if they are cheaper. They are very apt to cause you to invest in a ride on the "Interurban"—You better put that money in the price of a pair of high grade tires and ride home on your motorcycle.



WRITE FOR A COPY OF OUR NEW BOOKLET

G & J TIRE COMPANY, Indianapolis, Ind.

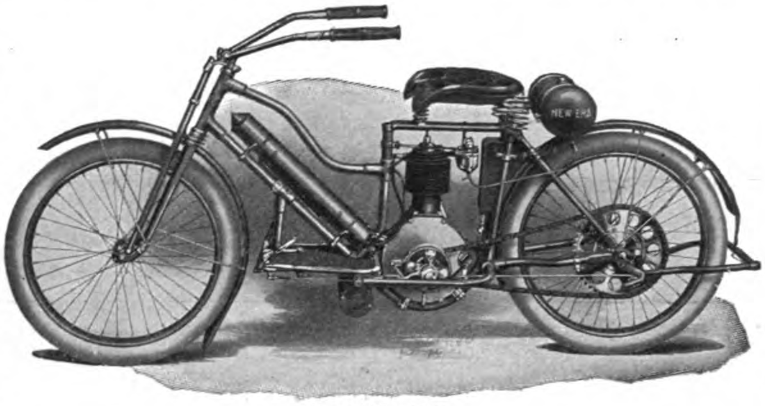
A NEW ERA IN MOTORCYCLING

was begun when

The New Era Auto-Cycle

made its appearance

It marked the beginning of *REAL* practicability and comfort.



Patent Pending.

Its long, low frame and spring-suspended, upholstered form seat and footboard (instead of pedals) makes it available for all ages and sizes and conditions of mankind; its two-speed transmission makes it master of any and all hills and renders possible the slow pace so necessary to safety and comfort on rough country roads and crowded city streets; its free engine (engine started by a crank like an automobile) makes it possible to start ANYWHERE from a standstill and without even "jacking up" the machine. Lots of these ideas are being and will be copied, but don't you pay for manufacturers' experiments. You don't have to do so when the New Era offers them in perfected form.

"Dear Sirs: In regard to inquiry, can say that the New Era Auto-Cycle is much beyond my expectations. I purchased my machine April 11, 1909, and up to the first of the year 1910 I had ridden something over 10,000 miles, and have a good machine yet. For your work or any other, racing excepted, I would not give one 'NEW ERA' for a car load of other makes for everyday use. Mud, snow, hills, level ground and good roads are all the same to the 'NEW ERA.' I am in the fire insurance business and use my machine in all kinds of weather and on all kinds of roads. Yours,
"Greenville, Ohio, Feb. 18th, 1910. O. P. McGRIFF."

Write for advance circular and agency proposition.

The New Era Auto-Cycle Co.
No. 22 Dale Ave. Dayton, Ohio

Among the many good reasons for specifying Morgan & Wright White Tread Motorcycle Tires on your machine for the coming season, the one which will strike closest to your heart (and pocket book) is this—

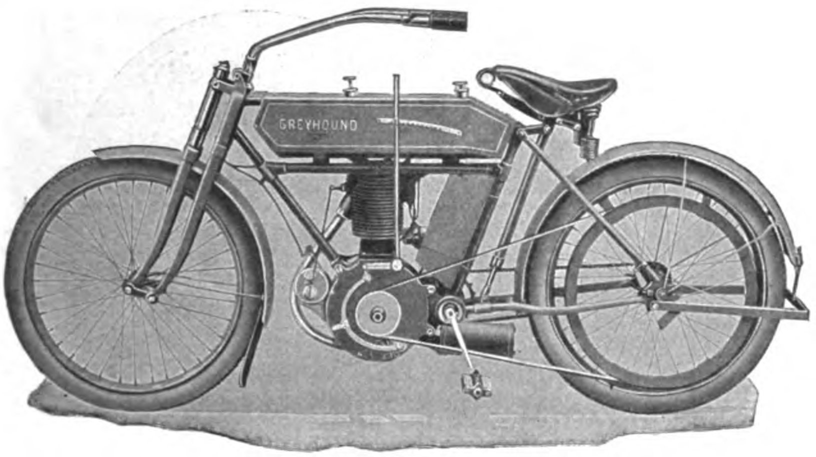
MORGAN & WRIGHT WHITE TREAD MOTORCYCLE TIRES

because of the extra amount of tough, wear-resisting rubber which goes into their treads, give much more than the ordinary amount of service and save the motorcyclist who uses them a corresponding amount in his tire bills.

Your manufacturer or dealer will be glad to equip your machine with them if you ask him.

MORGAN & WRIGHT : : : : DETROIT

THE SPLENDID GREYHOUND



is now made in sufficient quantity to warrant a considerable extension of the agency system.

This fact is being turned to advantage by a lot of bright, intelligent dealers over the country who recognize that the Greyhound is good to sell because it is so very good to ride.

We welcome correspondence with riders and dealers in regard to any motorcycle subject and will make favorable arrangements with desirable agents. Let us hear from you.

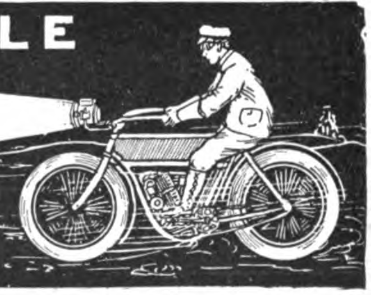
GREYHOUND MOTOR WORKS

Member Motorcycle Manufacturers' Association

1459 Niagara St., Buffalo, N. Y.

SALES AGENTS: Metropolitan District—THE BROWN-DEWEY CO., 1697 Broadway, New York, N. Y.
Illinois, Indiana and Wisconsin—WHIPPLE, "The Motorcycle Man," 923 W. Jackson Blvd., Chicago, Ill.

THE 20TH Century MOTORCYCLE HEAD and SEARCHLIGHTS



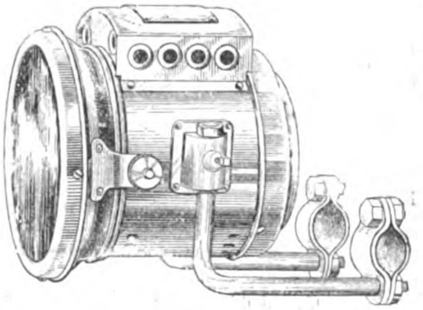
20th Century

GENERATOR No. 10

¶ There is no guess-work about the 20th Century.

¶ Lamp No. 102 and Generator No. 10 are regularly furnished with brackets that *fit every motorcycle.*

¶ You cannot make a mistake in placing this lamp and generator on your machine. *Send for catalog*



SEARCHLIGHT No. 102

20th Century Mf'g Co.

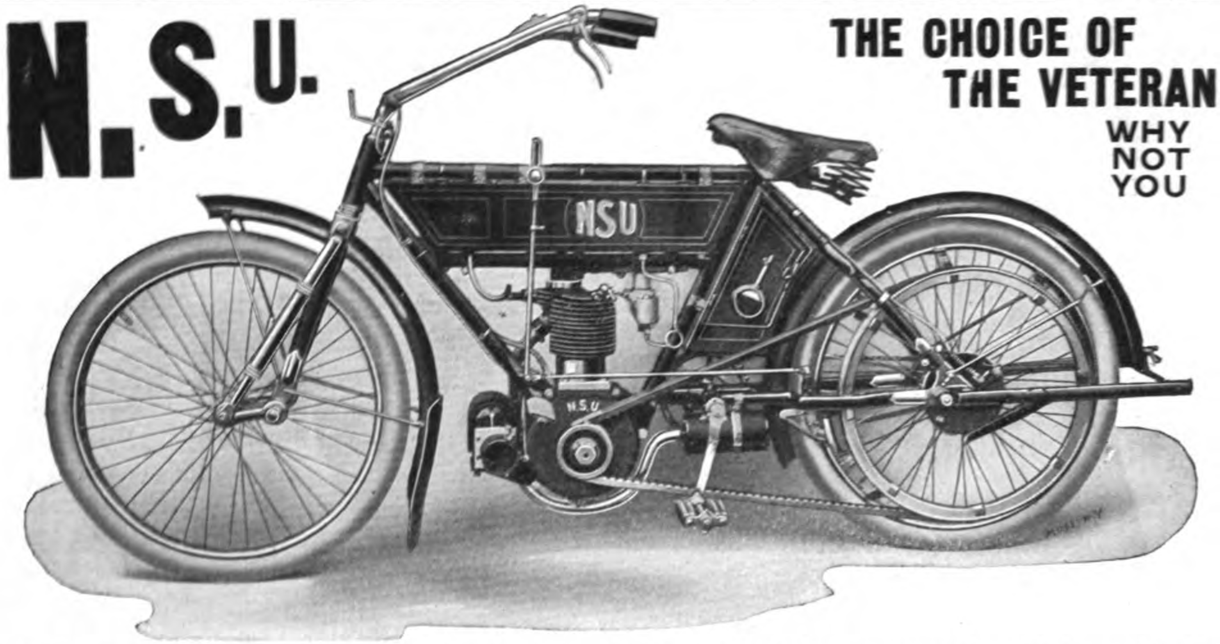
19 Warren St., New York City

Kindly always mention the paper when writing to advertisers.

N. S. U.

THE CHOICE OF THE VETERAN

WHY
NOT
YOU



THE 3½ F. A. M. Model is fast gaining the favor of those who desire a motorcycle a little better than the average; a motorcycle whose simplicity and reliability are established and have been for 10 years. No sensational changes, no imitations, no cheap materials have ever been adapted to the N. S. U. That is why you can bank on satisfaction. If you like, TWO SPEEDS AND FREE ENGINE GEAR too. Catalogue "M" tells you all about this model and some others.

N. S. U. MOTOR CO. Members M. M. A. **206 West 76th St., New York City**

1910 PITTSFIELD 1910

SPARK COILS, SPARK PLUGS, SWITCHES, TIMERS AND DISTRIBUTERS AND MAGNETOS

MADE IN AMERICA *HAVE NO SUPERIOR IN THE MARKET*

Magneto Spark Plug

The following testimonial was recently received by the Pittsfield Spark Coil Co., unsolicited.

"Columbus, Ohio, Oct. 11th, 1909.

"PITTSFIELD SPARK COIL CO.,
"Dalton, Mass.

"Gentlemen:—

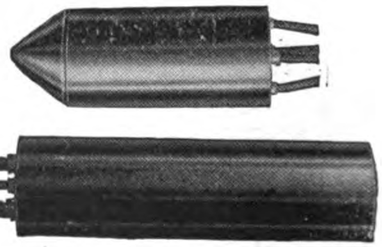
"I think you will be interested to know I am using the **best** coil **"PITTSFIELD,"** on my run from San Francisco to New Orleans and New York.

"I have covered 5,763 miles, 2,022 on railroad cross ties, and have had a terrible trip. Have been out thirty-seven days and had no ignition trouble. Your coil has stood unreasonable endurance, exposed to water, heat and cold in many States.

"I am an old-time rider and one who knows a good thing.

"Yours truly.
(Signed) "H. F. MERIWEATHER."

A Line of Pittsfield Goods is carried by H. V. Greenwood, 166 Lake Street, Chicago



Write today for particulars, catalogues, price lists and instructions.

PITTSFIELD SPARK COIL CO., Flansbury Ave., Dalton, Mass.

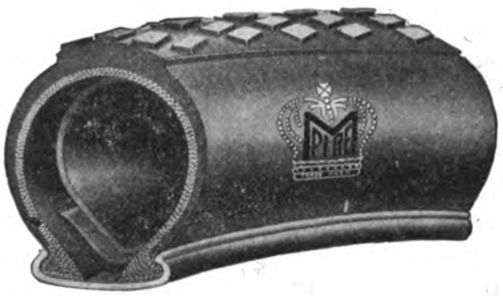
Sales Representatives: New England, W. J. Connell, 36 Columbus Avenue, Boston. **Atlantic States,** Thomas J. Wetzel, 17 West 42nd Street, New York. **Central States,** K. Franklin Peterson, H. V. Greenwood, 166 Lake Street, Chicago **Michigan.** L. D. Bolton, 319 Hammond Building, Detroit. **Pacific Coast,** The Laugenour Co., San Francisco.

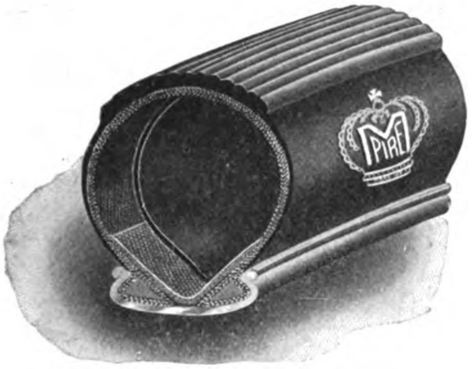
Empire Tires
WEAR LONGEST

Empire molded motorcycle tires are extra heavy and extra strong. They are made to give proper service on the heavier and faster motorcycles now being generally made. The best quality of Sea Island fabric is used—closely woven, of the same type as used in automobile tire construction. High class rubber is used throughout, which will give great wear and withstand great abuse.

CORRUGATED TREAD TIRE

This design will aid greatly in preventing side slipping, without detracting from the resilience or easy-riding quality of the tire in straight riding.





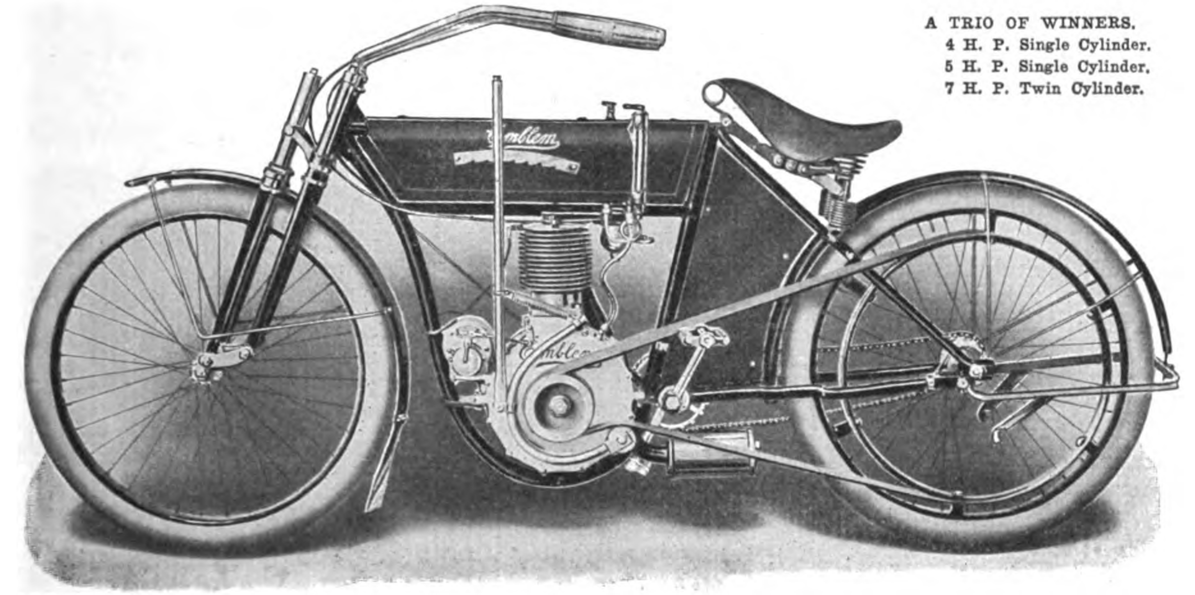
The Checkered Tread is the best non-skid tire ever offered for motorcyclists' use. It is very handsome in appearance. The rubber used in the tread is of a composition that gives the largest possible service. One of these tires ought to be on the rear of every motorcycle, the year around, as a guarantee against dangerous side slips.

EMPIRE TIRE COMPANY
TRENTON, N. J.

Class, Power, Speed and Satisfaction are the Appealing Features of the

1910 EMBLEM MOTORCYCLES

A TRIO OF WINNERS.
4 H. P. Single Cylinder.
5 H. P. Single Cylinder.
7 H. P. Twin Cylinder.



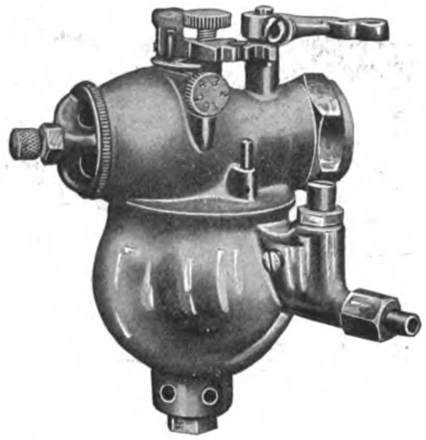
EMBLEM MANUFACTURING CO., Angola (Erie Co.), N. Y.

ALSO MANUFACTURERS OF THE EMBLEM BICYCLE.

DISTRIBUTORS.

John T. Bill & Co., Los Angeles, for California Meredith Cycle Co., Salt Lake City, for Utah. Alexander-Sewald Co., Atlanta, Ga., for the South
F. M. Spinning, Seattle, for Washington. Ballou & Wright, Portland, for Oregon. Henry Keidel & Co., Balt., Md., for Va. & W. Va.

Heitger Model F 1910 Motorcycle Carbureter



¾ INCH FEMALE THREADS, CUT ½ FULL SIZE.

It has mechanical control of gasoline feed to mixture, independent gasoline adjustments for both low and full speeds, indexed adjusting screws, throttle universal, can be set to operate from either side, straight line gasoline connection, new design float chamber, can be swiveled to any position, its shape reduces splashing of liquid to the minimum, handy priming stem, improved, durable, reliable air valve, all gasoline adjusting screws indexed, and ball rachet retained, all balls and springs of bronze.. ¾-inch female threads. List $10.00. Fully guaranteed.

This Model is all one desires for motorcycle use, and is being pronounced the acme of perfection by hundreds of riders, manufacturers, agents, etc. Has been adopted by the Merkel-Light, Wagner and Emblem motorcycle manufacturers and others as exclusive equipment for 1910.

If you do not use one on your old or new machine this season you will miss it, as it makes a new machine of an old one, and a better one of a new one. Fully guaranteed in every case. Live agents wanted everywhere.

HEITGER CARBURETER CO., Indianapolis, Ind.
208 WEST SOUTH STREET

Wagner
MOTOR CYCLES
PROVEN QUALITY

SOMETHING RADICALLY DIFFERENT

Not an Imitation, but the

ORIGINAL AND ONLY

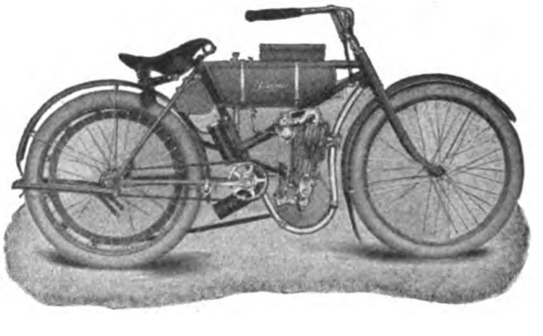
DIAMOND--LOOP FRAME

AND

TWIN FORK

IN THE WORLD

Costs no more than the other kind and its cheaper than Accident Insurance



IMMEDIATE DELIVERIES

WAGNER MOTORCYCLE CO.
ST. PAUL

CHICAGO
1610 Michigan Ave.

DETROIT
253-5 Jefferson Ave.

The Neverout
TRADE MARK

MOTORCYCLE OIL LAMP

SHOWING A RED REAR LIGHT

¶ The Neverout burns kerosene ten hours with one filling, and will stay lighted under any and all conditions. ¶ All riveted—will not rattle apart over roughest roads.
¶ Made in gun metal, brass or nickel finish

AN OIL LAMP THAT MAKES MORE LIGHT THAN MOST GAS LAMPS

The Neverout
TRADE MARK
PREVENTS ACCIDENTS
NOTE REAR SIGNAL
FOR MOTOR CYCLES
PATENTED

Lamp Weighs Only 12½ Ounces

GUARANTEED TO STAY LIGHTED OR MONEY REFUNDED

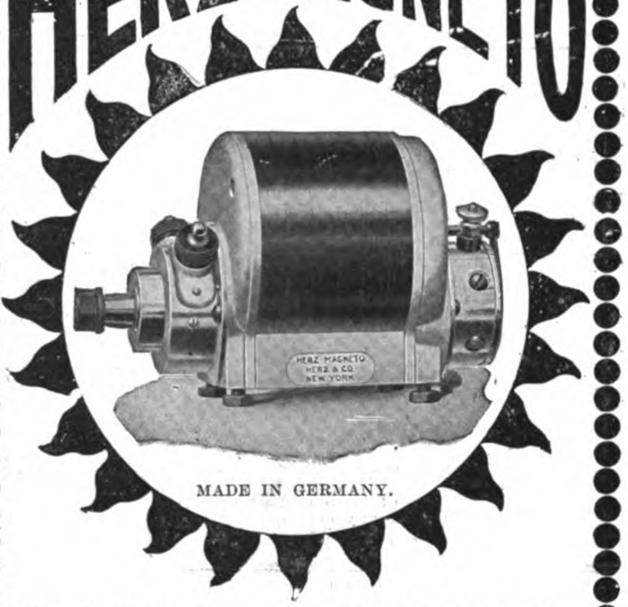
¶ The Neverout is equipped with a PATENT GLASS COVERED REFLECTOR OF GERMAN SILVER, instantly removable, never loses its original brilliancy.
¶ The only perfect and reliable motorcycle lamp made.
¶ Double clamp bracket furnished, fastens lamp securely to fork of motorcycle. No danger of shaking off, and SHOWS RED REAR DANGER SIGNAL.

Sold by leading jobbers and dealers everywhere

ROSE MANUFACTURING COMPANY
933 ARCH STREET, PHILADELPHIA, U. S. A.

The Neverout complies with the laws of the various States and Municipalities

HERZ MAGNETO



MADE IN GERMANY.

On YOUR Motorcycle means a FAT, HOT ARC FLAME at the first ¼ turn of your pedal and ever after. It's the strongest, most efficient, lightest and most compact Magneto made.

Over 15,000 on American 1910 Motorcycles.

EQUIPMENT ON: EXCELSIOR, PIERCE, THOR, YALE, HARLEY-DAVIDSON, GREYHOUND, EMBLEM, WAGNER

Thousands of Testimonials.

HERZ means absolute dependability.

Mr. E. W. Rietz says: "It's the best Magneto made. My machine will run just as slow as a battery machine and is a lot more reliable."

THE HERZ-PLUG

No Cleaning
No Taking Out of Motor
Proof Against Oil
Proof Against Soot

gie Mercedes"
The Famous STONE PLUG
Absolutely Self-Cleaning
A Great Saving To You

The Greatest Value in Spark Plugs Ever Offered.
Absolutely Guaranteed One Year.
PRICE, POSTPAID, $1.50

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NEW YORK
CIVIL ENGINEERS.

Mr. Dealer! Our Goods Will Help To Increase Your Business

They will make friends for you. Motorcyclists who know that you handle our line will frequent your place to see the new goods. We are the largest importers of motorcycle accessories in this country and the first to import new novelties. You have no idea how much difference our goods will make on your trade. Suppose you write for our trade discounts.

COMBINED LAMP AND GENERATOR

A combination of lamp and generator that is better than any ever devised for motorcycles. Lamp has a mangin mirror lens that projects a powerful light. Generator is very simple in operation. Complete outfit weighs only 28 ounces. Bracket on any motorcycle will fit it. Supplied in nickel only.

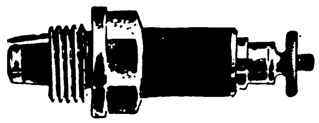
No. 88. Price, - - - - $5.00

TRIPLE TWIST FROG HORN

Used mostly on motorcycles, runabouts, and on rear of tonneaus. Triple-twist construction produces a deep penetrating tone. Supplied in nickel or brass.

No. 10, Bell 3¼ Ins., Price, - $2.25
No. 11, Bell 4 Ins., Price, - 3.00

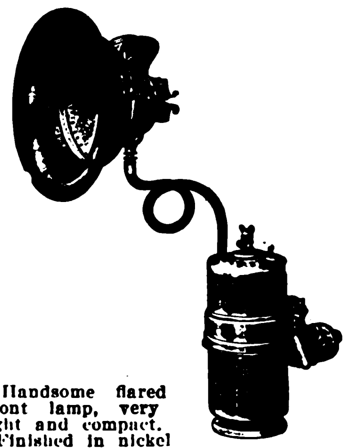
MICA MOTORCYCLE PLUG



Constructed from amber mica, with composition platinum points, ensuring positive spark.

No. 160, ½ Inch and Metric, Price, 75c.

MOTORCYCLE LAMP SETS



Handsome flared front lamp, very light and compact.
Finished in nickel and with nickel fittings. Interior of lamp highly polished, projecting a brilliant light. Generators are very simple in operation.

Set 55A and 55B Lamp 5 ins. diameter, 4½ ins. depth, and generator height 5½ ins., diameter 2½ ins.

Price, Complete, - - - $6.50

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We build both the Square Line frame and the Loop frame.

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It is a winner. So are the AMERICAN machines. 1910 Models ready for delivery. 1910 catalogue now out; we will mail it on request. Write us on your business letter head.

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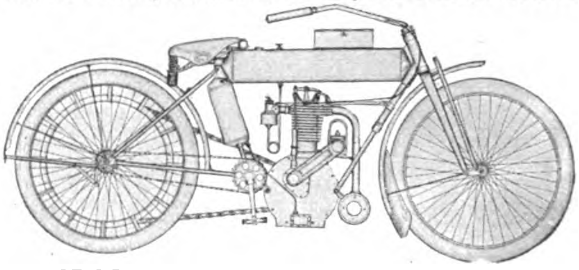

THE MARVEL

Because it has the Curtiss 4-5 h. p. Overhead Valve Motor that no single can equal.

Because the Frame is stronger and neater in appearance. The 2½ gallon Frame tube cannot break, dent or leak.

Because the value is equal or better than any $250 Motorcycle, and yet sells for only $225.

Because nothing but the best of everything is used on it, including Bosch Magneto, Eclipse Free Engine Pulley, N. S. U. Two Speed Pulley, 2½" Tires and 1⅛" V Belt.

Because Its Saddle position, Correct shape, Sager Style Spring Fork, Long Wheel Base and Perfect Controls make it a very comfortable riding Motorcycle.

Because you can inspect each part without removing another part to get at it.

Because wherever the Marvel Motorcycle is seen there will immediately be a big demand for it and you cannot afford to let your competitor sell it in your locality.

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Manufactured and Sold

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say: "there's no shaking here." The Spring Frame and Fork smooths out the roughest roads. Get our new catalog which tells all about them. If you're thinking "agency" post us a line today.

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With or Without Plug Switch

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The most reliable and durable coil yet. Can be put in battery case with two batteries and will run you 1,000 to 1,500 miles.

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IF YOU HAVE

a broken article that is made of cast iron, don't throw it away! Clean and fasten the broken parts together with binding wire, then put them in a fire till cherry-red, throw some brass and a little

C. R. U. BRAZING SALT

on the parts at the point of connection, and your cast iron will be brazed and mended just as though it had been steel or brass.

$1.00 per Pound. 12 Pounds $10.00.
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constitutes such a group of valuable features as is found in no other machine on earth

The "Show Me" Motorcycle

Write for more Information

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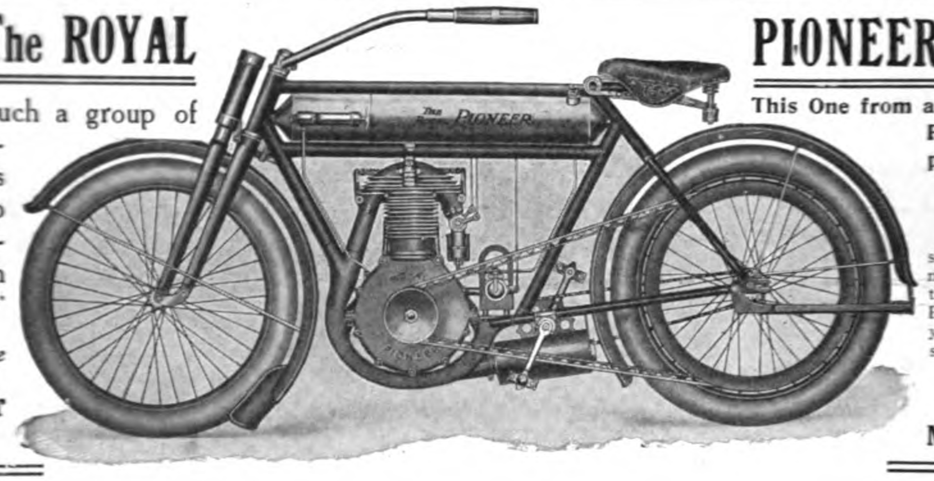
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This One from a Man Who Is Far from a Repair Shop.

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There isn't a slicker running motor in Mexico than the Royal Pioneer. Wishing you the best of success.

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Worcester Massachusetts

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IN QUANTITIES

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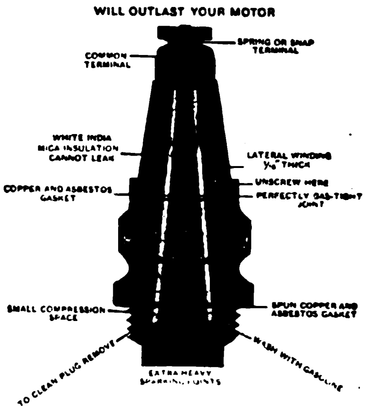
THE SPLITDORF Motorcycle Plug?


WILL OUTLAST YOUR MOTOR
COMMON TERMINAL
SPRING OR SNAP TERMINAL
WHITE INDIA MICA INSULATION CANNOT LEAK
LATERAL WINDING 1/16" THICK
COPPER AND ASBESTOS GASKET
UNSCREW HERE
PERFECTLY GAS-TIGHT JOINT
SMALL COMPRESSION SPACE
SPUN COPPER AND ASBESTOS GASKET
TO CLEAN PLUG REMOVE
WASH WITH GASOLINE
EXTRA HEAVY SPARKING POINTS

if not, you are not getting the best ignition

C. F. SPLITDORF

Walton Ave. and 138th St.
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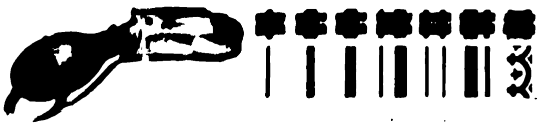
SAVES TIME, LABOR AND MONEY

Our Striping and Stencil Wheel Gives Uniform Results



These cuts represent only a few of the designs which can be produced with this device. Full directions together with cuts of Ornamental designs furnished with each machine, or on application.

NICKEL PLATED, FITS THE HAND

Price for complete outfit, consisting of Machine and Ten Plain Wheels and One Ornamental Wheel, $[illegible] and $5.50 for outfit including Twelve Extra Ornamental Designs.

Manufactured by **CHAS. R. UEBELMESSER CO., Inc., Bayside, L. I., N. Y.**

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FOR MOTORCYCLES ARE GUARANTEED FOR FIVE YEARS

The Famous Pfanstiehl Pancake system of winding, combined with a perfect balance of parts, and high grade construtcion, assures you of INDESTRUCTIBILITY, UNIFORMITY, RELIABILITY, and a strictly high grade coil at a reasonable price.

Constructed for use in connection with either 2 or 3 dry cells. Balanced to meet special requirements.

The New Pfanstiehl Motorcycle Magneto

FILLS A LONG FELT WANT

Strong and substantial in construction, though neat and compact in appearance.

Constructed by Pfanstiehl patented methods and covered by Pfanstiehl broad guarantees.

Not an experiment, but something a little more advanced than anything you have yet seen.

Don't fail to test this machine before closing contracts. Our prices will command your immediate attention and interest.

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NORTH CHICAGO, ILL.

U.S. & FOREIGN
Reliance
PAT'S PENDING

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The Regular Reliance is the famous "Spark in Water" plug known the world over as the plug that can't short-circuit. Electrically different from any other plug—with every part accurately machined, making them mechanically as well as electrically correct.

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The Reliance Magneto plug is designed along the Reliance principles, but built especially for service when the current is generated by a magneto. It is especially desirable and serviceable when an excess of oil is used.

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Reliance
MAGNETO
PAT'S PEND
PLATINUM-IRIDIUM ELECTRODE

Prest-O-Lite
Gas Tank

As Necessary on Motorcycles As on Automobiles

A poor light is both a nuisance and a standing invitation to danger, accident and expense.

Prest-O-Lite gives steady, strong and reliable illumination. The only really economical system.

Prest-O-Lite Tank (Motorcycle Size), 12 inches long; 4 inches diameter. Weight, 7 lbs. Holds 10 ft. of gas—40 to 60 hours of light. This size is also used on automobiles, as a reserve supply.

PRICE $10. Full tank in exchange for empty **60c.**

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Branches at New York, Boston, Philadelphia, Cleveland, Chicago, Detroit, Providence (R. I.), Minneapolis, Omaha, Dallas, Los Angeles and San Francisco

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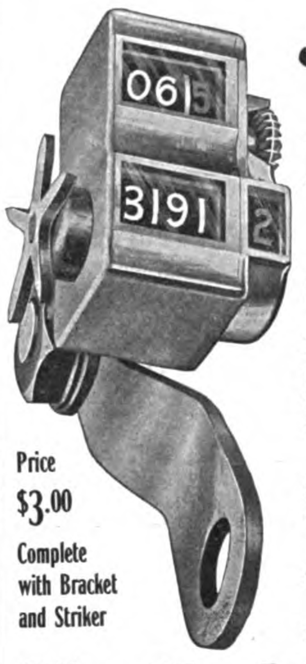

Veeder
Motorcycle Trip Cyclometer

Price
$3.00
Complete with Bracket and Striker

Made heavy and durable for the hard usage it receives on the Motorcycle.

Adjustable Bracket fits all makes of machines.

Large and strong striker.

Made for 24 in., 26 in. and 28 in. wheels.

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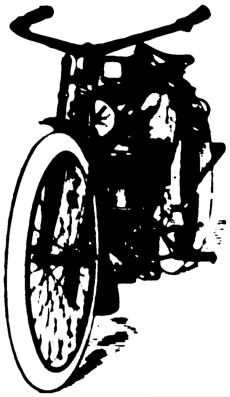
Makers of Cyclometers, Odometers, Counters, Tachometers, Tachodometers and Die Castings



YALE MOTORCYCLES

Hold world's record for endurance. Operated at lowest upkeep cost of any.
Ran 132 hours without fan or other cooling device and DID NOT OVER-HEAT.
LONG STROKE MOTOR; SILENT MUFFLER; COMFORTABLE TO RIDE; EASY TO OPERATE.

RIDE A YALE—THEY NEVER FAIL

1910 Models are being delivered. Write to-day for agency proposition.
Get our booklet, "What is Reliability?"

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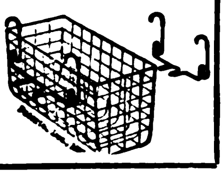
We also make Yale and Snell Bicycles, Hussey Handle Bars, Consolidated Package Cars and Drop Forgings of every description.

Dowe's Bicycle Luggage Carriers

Best Thing for the purpose ever put on the market. In use all over the United States. ¶ Can put on or detach instantly with adjustable hook. ¶ Good sellers because the riders all want them and the price is popular. Write for Prices.



DOWE WIRE & IRON WORKS
Louisville, - - Kentucky

They all go wild over the new **MINNEAPOLIS** That new independent clutch on the motor has made a double hit.

Attention Dealers. We have the two machines that the public wants: Our models "K" and "L". Write at once for agency proposition.

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Chairman F. A. M. Membership Committee,
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Dear Sir: I feel that I ought to be a member of the F. A. M. We must have a national organization to promote motorcycling and to guard and care for its many interests. Please send me particulars.

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City ____________________
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3 Cents a Word

It Always Pays

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——Make a Strong Combination——
Be Sure to Specify Duckworth.
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"K & R" Two-Speed Method of Starting
"IT'S ALL IN THE HUB." Starts With a Crank

NIFTY, ISN'T IT? THIS HAND STARTING FEATURE

At a fraction of the cost of a new machine, you can bring your present mount strictly **UP-TO-DATE** with the **1910 MODELS** by attaching

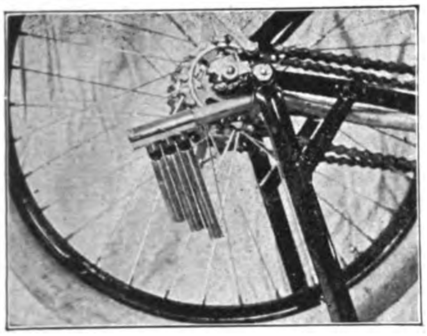
THE "K & R" TWO-SPEED AND FREE-ENGINE HUB

Every rider who is **KEEPING POSTED** knows that it is a case of having a **TWO-SPEED** or being a "has been." Then the question arises as to a device that will stand the strain.

Calculate the tremendous strain on a **TWO-SPEED** when thrown into **LOW GEAR**, and even the novice will readily see that it requires **LARGE, SUBSTANTIAL WORKING PARTS** to stand that strain. There is but **ONE** place for such parts **WITHOUT LOST MOTION** or **FRICTION**, and that is **IN THE HUB**. **"K & R" TWO-SPEED** drives **DIRECT** from motor to hub; **NO LOST MOTION**. Working parts and wearing surfaces are as large as those used in some runabouts. Will last the life of any motorcycle and **GUARANTEED** to stand the strain of **ANY** motor—**SINGLE OR TWIN**. Easily attached to **ANY BELT DRIVE** frame and does not change the lines of your machine in the least.

Our **"K & R" CONVERSION SET** catalog gives much more information and **FACTS** that will interest you, and we can take care of a few more live agents.

KELLER & RISQUE MOTOR CO., Bridge Square, ST. PAUL, MINN.



At last, a successful chime exhaust motorcycle whistle. Only $3.00. For twin cylinder machines only. Can be fitted to 1909 or 1910 Twin Indians in two minutes; only a screw driver required. Get on our mailing list for copy of our 1910 motorcycle supply catalogue.

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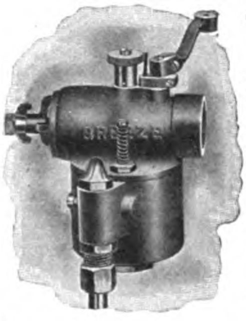
H. H. WILCOX

159 Green St., Jamaica Plain BOSTON, MASS.



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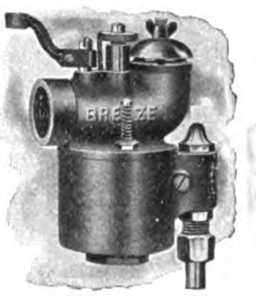
CARBURETERS

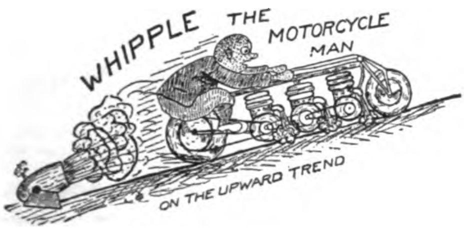
made of polished **aluminum, small parts of brass.** Weigh fourteen ounces each, price $10.00. Special connections for popular machines included in price; 80 to 95 miles per gallon under road conditions. Write for special literature. Send 25 cents for our Engine Trouble Text-book. 40 pages.

Have you seen our five ounce strainer ? Price, $1.00

BREEZE CARBURETER COMPANY

250-252 SOUTH ST., NEWARK, N. J.





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The one absolutely dependable line of lamps for every motor purpose. The maker of your machine will furnish Solar equipment if you insist. Why be content with ordinary lamps when you can have Solars?

Badger Brass Manufacturing Co.

KENOSHA, WIS. NEW YORK CITY

(47)

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ONLY MOTORCYCLE SPEEDOMETER

WITH A STEADY HAND

The Police of several cities have replaced other speedometers with "STANDARDS," because "STANDARDS" remain accurate.

Special Fittings for every Spring Fork Machine.

Send at once for new catalogue.

Our New Models have Trip as well as Season Odometer without extra charge, and you have a choice of either 60 or 80 mile dials at the same price.

We can now furnish fittings for the following 1910 Spring Fork Machines:

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TOTAL
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SHAMROCK GLORIA

The Vee ALL GRIP

THE BEST BELT

The Vee NO SLIP

Insist on The Genuine

THE REASON

"The S. G. Belt is still in good condition and certainly good for 500 miles more. When one can get belts that will take a heavy and powerful machine like mine for 2,500 miles without even cleaning it, those who advocate belts not strong enough are a bit out.

"In every respect, such as silence, smoothness of drive, etc., S. G. Belts are all ready admitted superior."

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A PROOF

that there is nothing equal to or just as good as the

S. G. BELT

All Manufacturers Equip Them
All Dealers Sell Them
Our Booklet M Explains It

N.S.U. MOTOR COMPANY
206 West 76th Street
HANOVER VULCANITE CO.
16th Street and Irving Place, New York City

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McLaughlin & Ashley
2384 Broadway, N. Y. Tel. 3141 Riverside
N. S. U. and Merkel Motorcycles
1910 Models ready for delivery
Expert Repairing at Reasonable Rates.
Storage Parts and Accessories

ROYAL PIONEER MOTORCYCLES

1910 models now ready for delivery. Finest stock of parts for all makes of machines and all kinds of sundries in Greater New York. Give us a trial and be satisfied.

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They're easiest to fix. Cost least for upkeep. Tough yet resilient and easy riding. Outwear several pairs of ordinary tires. Can be permanently repaired, if jagged by nails, etc.

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3½ H. P. Single Cylinders
With Bosch Magneto, $225
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The British Motor Cycle
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American subscription rate, $2.50 per annum
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MOTORCYCLE ILLUSTRATED

Vol. V. No. 6. March 15, 1910

PUBLISHED BY THE MOTORCYCLE PUBLISHING CO., 299 BROADWAY, NEW YORK CITY.

NOT MUCH BUSINESS DONE AT BOSTON SHOW

That Is, Not By the Makers of Motorcycles—Fine Decorations; Good Attendance, But a Shortage of the Enthusiasm Backed by Cash

ANOTHER show has been held in Boston and the expected has come to pass. None of the motorcycle fraternity who traveled to the Hub in the trail of their exhibits hoped to do very much business, but despite the modesty of their anticipations, it cannot be truthfully said that even these were realized. It were futile to whitewash the result of the efforts of the trade in connection with this particular motor exposition. Among the exhibitors last week the sentiment was almost universal that it would be hard to interest very many motorcycle manufacturers in the 1911 show. They have given this enterprise their support in the view of discouragement year after year and with hardly a ray of light to illuminate an invariably gloomy situation.

These are not the views of a pessimist, for it is the well known policy of this paper to find something bright, if at all possible, among the most forbidding circumstances. We are simply stating the facts as our representative found them and as they were emphatically and plainly expressed by practically all of the manufacturers. However, it is easier to state the result than the reason. There is unquestionably plenty of motorcycle enthusiasm in the New England States. New agencies are being established with a satisfactory frequency, new clubs are being organized all over the Down Eastern territory and the number of registered riders as compared with the lists of last year reveals a decidedly rapid increase. The trouble may be found in the fact that Boston is the fag end of a field which is pretty thoroughly covered by the Madison Square Garden Show in New York earlier each year. Again, the motorcycle exhibits were not conspicuously staged. Last year they were assigned to the basement, but the attendance was fairly large, as the exhibits were easily found. This year the motorcycles were placed in the gallery and there was little to indicate their location to the casual visitor. Those who knew nothing of the existence and development of motorcycles learned very little at the Boston Show, because in ninety-nine cases out of one hundred they never came near the motorcycle exhibits, which were viewed with very few exceptions only by those who came to the show with the express purpose of seeing the motorcycles there.

The firms exhibiting were the American Motor Company, Brockton, Mass., represented by W. T. Marsh and Alonzo Hoyt; the Hendee Manufacturing Company, Springfield, Mass., Messrs. Carrett and John McDowell; Consolidated Manufacturing Company, Toledo, Ohio, Messrs. Coffman, Cornish and Nichols; Aurora Automatic Machinery Company, Chicago, Geo. W. Sherman, E. H. Corson and G. H. Squier, Reading Standard Company, Reading, Pa., Messrs. Remppis, Mariani and Rhodes; Merkel-Light Motor Company, Pottstown, Pa., Messrs. Buffum, Mann, Latham, Griffin and Walker; Reliance Motorcycle Company, Owego, N. Y., W. H. Ives; Excelsior Supply Company, Chicago, Stanley T. Kellogg; Emblem Manufacturing Company, Angola, N. Y., W. G. Shack, and the Miami Cycle & Manufacturing Company, Middletown, Ohio.

It was thought last year that the show decorations, since they were modeled after an art motif which was selected from abroad after a long and painstaking search, were scarcely to be exceeded, but the transplanted motif, however good it may have been, falls flat in the face of the effort this year. New England scenery in the springtime offers many advantages, and in accepting it as his plan, Manager Campbell, with his native instinct, struck the responsive chord and added the atmosphere, as it were, which brought an apparent illusion up to the standard of a reality.

The spectators, as they passed the entrance, came into view of an old New England apple orchard which was improvised by the simple expedient of transferring the bark of old apple trees to the columns which support the Hall, and the limbs of the trees were fastened to the columns in a way to complete the illusion. It took a hundred thousand clusters of apple blossoms, which looked so real that one could scarcely tell that they were improvised. The old rail fences which were brought down from New England farms, completed the spectacle, but the daffodils, which were used in profusion and arranged in boxes at points of vantage, added the finishing touch to the Springtime scenic undertaking. There were other floral effects and decorations to match, and each of the halls were given a sufficient dash of variation to induce mingled feelings of surprise and pleasurable anticipation. A prominent feature, and one which quickly caught the eye of the visitor as he entered the show, was the new Herring-Burgess aeroplane hanging from the ceiling. This air-craft is the design of A. M. Herring, formerly the partner of Glenn Curtiss, and was built by W. Starling Burgess, the yacht-builder of Marblehead, Mass. In its detail it shows the effect of the mariner's training and instinct, being far superior to the majority of aeroplanes. This aeroplane also has the distinction of being the first to fly in New England.

A View of the Motorcycle Section of the Boston Show.

TO THE GREAT FALLS OF THE POTOMAC—By THOMAS O. WANSLEBEN

OF the thousands of visitors who yearly "see Washington," few fail to ascend the Washington Monument, and these few do not realize the treat they miss. Situated in the southern part of the city near the river, the view commanded from its windows, five hundred feet from terra firma, reveals a picture that only birds are supposed to enjoy. From the north and east we look out upon what appears to be a sleepy community—and perhaps to many accustomed to the hustle of more commercial cities it is—dotted here and there with white buildings which stand out in strong contrast to the green parkings, fading away to a faint purple distance, under a bright and clear Dixie sun. To the southeast the Potomac, speckled with creeping river craft, broadens and fades into mist; on its right bank, seven miles away, historic old Alexandria can be clearly seen, while to the south is the Old Dominion, separated from us by the river.

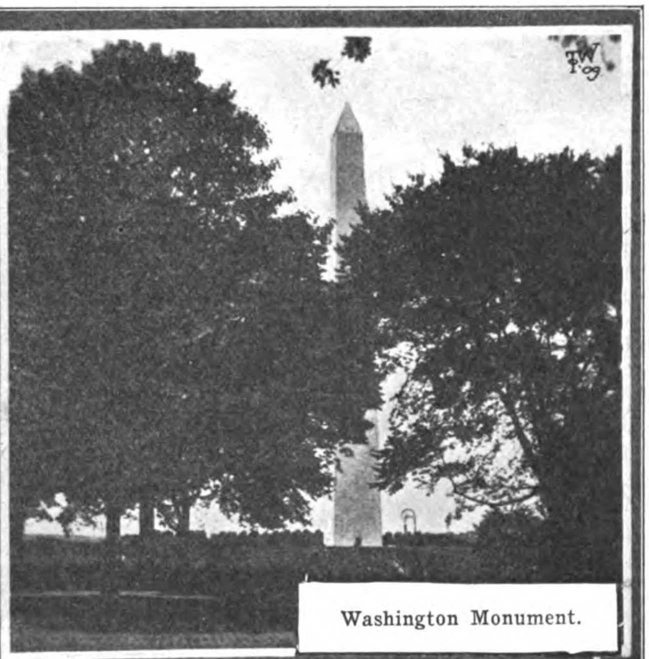
We take it for granted that as a visitor to Washington you have paid tribute to each of the squatty looking buildings which help make up the landscape, and as a motorcyclist you wish to see that which cannot be seen even from the most commanding viewpoint. Let us descend. Leaving this exaggerated stone needle, we follow the drive through Potomac Park to Twenty-sixth street, thence to Pennsylvania avenue, and, turning left, cross the bridge over Rock Creek into Georgetown, once the home of aristocratic Washington. At Thirty-sixth and M streets we cross the Aqueduct Bridge into Roslyn, Va., a little beyond the fine though hilly military road to Fort Meyer, where Wright gave many demonstrations with his aeroplane, and Arlington National Cemetery, perhaps the most famous military burial ground in the United States.

The distance has been so short that we will return to the city and at Thirty-sixth and M streets go left into the Canal road, follow it a quarter mile, ascend a steep hill at its right fork to the Conduit road. For many years "Conduit" has been synonymous of good road, at least in and around this part of the United States, and verily it is a dandy macadam highway which has been the joy of cyclists since the earliest days, and of autoists since the advent of the benzine buggy. Along this superb piece of roadway, with its many turns and shady stretches, we follow the usually muddy Potomac, out of the District of Columbia into Maryland. Ascending and descending a hill of no mean consequence, we find the scenery improving, with straighter stretches of road.

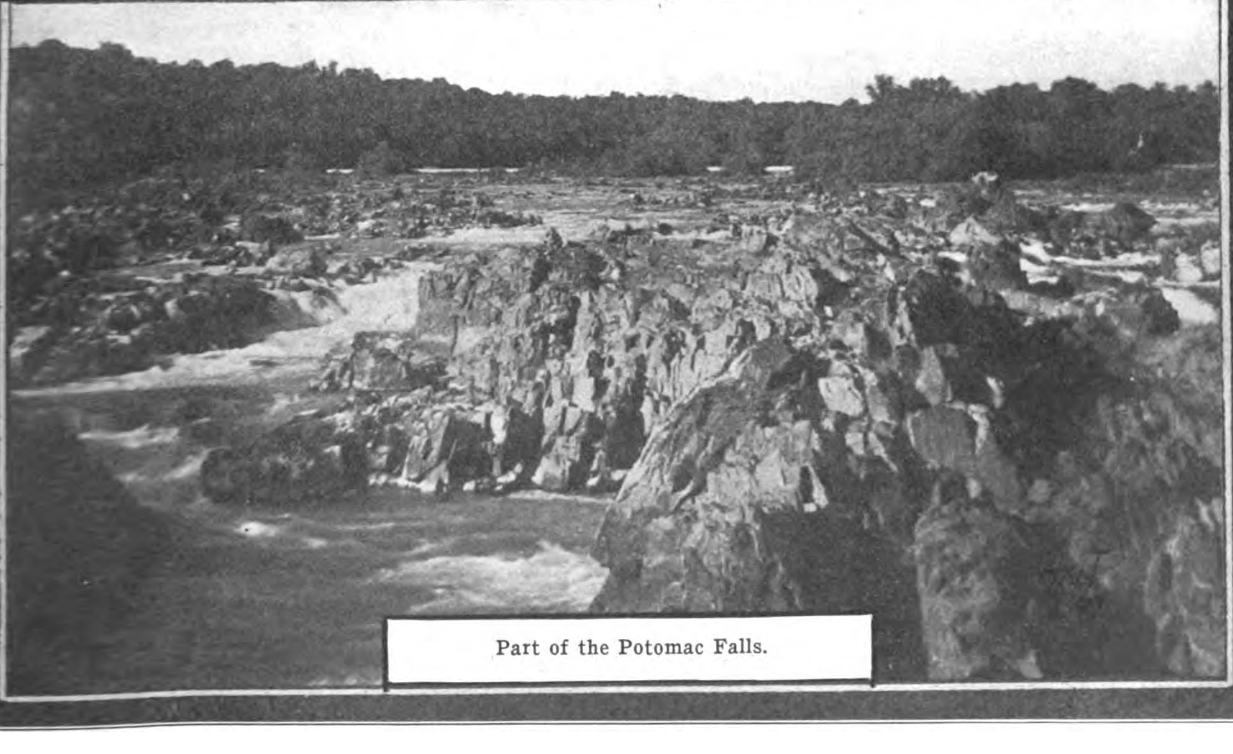
We pass Glen Echo Park and Glen Echo, an insignificant hamlet made famous several years ago by a certain "Marshal Collins," who preyed on all persons who exceeded his prescribed limit of twelve miles per. Just beyond, and eight miles from the city, is Cabin John Bridge, the largest stone arch in the world, which assists in carrying the District water supply from Great Falls. Mr. Roosevelt's having the name of Jeff Davis carved on the walls of the bridge caused considerable comment. Yet the name is there! If you care to tarry about this stone structure, I can assure you your time will not be wasted. From here on the scenery is beautiful and the road well shaded. At Anglers' Club House, about two miles from Great Falls Hotel, the macadam ends. From this point there are two ways to the Falls. One is to follow the left fork through woods to within half a mile of the hotel, where one must abandon his machine and walk. Although very picturesque, this is a very dangerous road, and should be tackled with care and a good brake. The other way, by the right fork, offers excellent riding in good weather and is chosen by most riders, as it takes one quickly to the hotel. The pimples encountered in these two miles are not always forgotten even by twin riders, yet there are points of interest, among them a deserted gold mine.

At last we arrive at Great Falls Hotel, sixteen miles from Washington. Naturally we are hungry, so after indulging in a genuine Maryland chicken dinner at three-quarters of a bone apiece, we sally forth to see the Falls. We cross the canal lock on a gate or plank, and then cough up a nickel apiece on a rickety swinging bridge, after which we travel about a quarter of a mile over roots and streams and around boulders and trees until at last we view the foaming, surging water dashing over the huge, barren rocks on its way to the sea. Across on the Virginia side is a pleasure resort which can be reached by ferry further up; should you cross you would see some interesting relics of by-gone days. But by all means leave your motor on the Maryland side, for I still regret the return trip I once made over Virginia roads. If you are a fisherman you will find this spot a paradise for your favorite pastime. When back home you'll tell your friends of this most enjoyable run and recommend it to all who visit the National Capital à la mortorcycle.

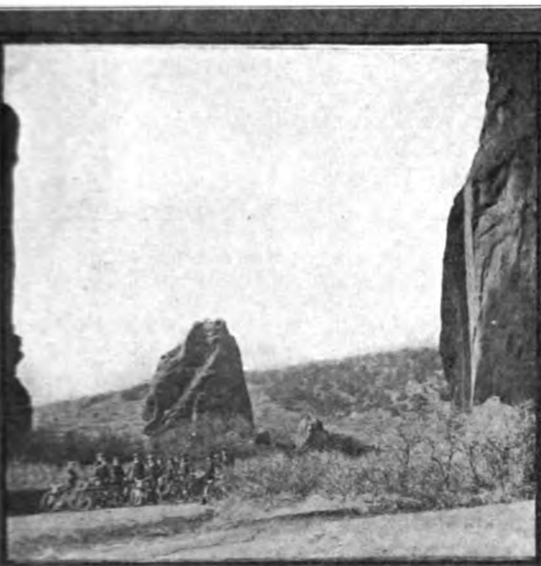
Conduit Road Guardians.

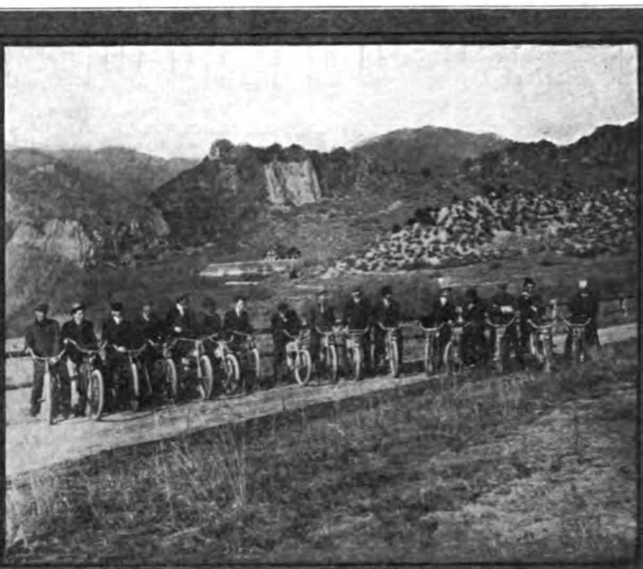


Washington Monument.



Part of the Potomac Falls.





MOTORCYCLING IN ONE OF NATURE'S BEAUTY SPOTS

Top, left—A group of riders in the famous Garden of the Gods.

Top, right—In front of Glen Eyrie, General Palmer's fine place in the Garden of the Gods.

EXCELSIOR RIDERS IN COLORADO SPRINGS

Center picture—Highest point in the Garden of the Gods.

Bottom, left — The Fountain Excelsior Club.

Bottom, right — Balanced rock in world-famed Garden.

AN EXTRAORDINARY EXPERIENCE

A Story Prompted by a Desire to Outdo All Others.

THE inclement weather which prevails in the East during the winter months doubtlessly causes many an ardent motorist to cast longing glances toward Colorado, where we ride eleven months out of the year. But this year we have had an unusual amount of snow and we shudder at the thought of having to store our machines even for a week, something we have never as yet had to do.

"Well," remarked one of my friends, "if this continues another week, I'll go crazy. If it wasn't for this blasted weather, I'd take my machine and go hunting." "T'ell with the weather," says I, "we'll go anyway, and make it a bear hunt at that."

After spending the next day loading the tents, provisions and shootin' irons upon our luggage carriers and overhauling our machines, we turned in early in the evening in order to get a good night's rest. It was a cold December morning—snowing to beat the cars—when our party of four mounted their machines and faced the icy blasts in quest of the greatest of all game. Our trusty sled attachments enabled our big twins to negotiate the deep drifts with ease, while a heating device, invented by one of the party for the intake pipes, proved a godsend. It consisted of a hose-like casing of asbestos in which was a network of wire connected with the magneto. It fitted snugly around the intake pipes and became quite hot soon after the motor was started—without this the mixture would have undoubtedly frozen solid. The cold finally became so intense that we were compelled to wrap yards of fiery red flannel around the cylinders in order to retain sufficient heat within the walls to keep the oil in a liquid state—thus allowing the pistons to move freely and transmit enough power to buck the snow. It was necessary to keep up a pace of not less than thirty miles per hour in order to generate enough heat by friction to keep the air in the tires from liquefying. But we trudged merrily on, and about 5 o'clock in the afternoon reached our destination. After clearing away three feet of snow we pitched our tents—one hundred and fifty miles from home.

The next morning, after enjoying a hearty breakfast, we prepared for the annihilation of Mr. Bruin. The snow was still falling and it was so cold that each one of the party had to arm himself with a stout cudgel in order to knock his breath off, which now froze solid as it was exhaled. After warming up our machines we started out and, exhilarated by the crisp mountain ozone, we skimmed lightly over the snow toward parts unknown. We traveled most of the day, listening keenly all the while for the purring of a bear, but in vain.

During the next five days we trapped a choice Hungarian goulouf now and then—but no bear. Disgusted with their luck, the rest of the party decided to break camp and return home. By this time the snow had become so deep that our machines could hardly navigate; but I decided that we would not return home until we had got a bear. Consequently I spent that night in constructing a crude rotary snow-plow attachment for my machine. The next morning I removed the snow attachment, put the rotary in place and gave it a trial; it worked admirably, much to the amusement of my friends. So while the boys were breaking camp, I started out to have some real sport—bear hunting on a motorcycle in five feet of snow. Mile after mile was reeled off through the timber with the snow up to my ears.

Suddenly I felt a hot breath upon my ear, and there was, sure enough, a "b'ar." I advanced the spark and gave her all the throttle, but to no avail; on and on we raced, but I could not gain an inch on him. His speed was terrific on account of his large, webbed feet, which enabled him to travel upon the surface of the snow. Finally I managed to gain about fifty feet and, thinking this to be an ideal opportunity, I decided to give him a bit of lead. I had no sooner taken my revolver from my belt than I found myself flying through space—my machine had collided with a stump. But my aviation was suddenly interrupted by a huge pine tree. Then the bear, seeing me embracing a tree, began to lick his chops.

A few moments later we were both going up the tree. During our climb I had been so intent upon my opponent's progress that I did not realize what was above me, until I was horrified to find that we had reached the top. What was I to do now—no more tree to climb, the bear at my heels, and no gun! Ah, a thought! Quick as a flash I took my tire pump from my pocket and, as he opened his mouth to devour me. I thrust it down his throat and began pumping frantically. After fifteen minutes of pumping I fell over upon the limb of the tree exhausted. When I again looked up I saw Mr. Bruin, four times his natural size, floating off into space, the pump still in his mouth.

I rode back into camp, and while I was relating my adventure to the boys something landed at my feet with a thud that shook the universe—it was nothing less than the bear, with a large hole in his lung. After a lengthy inquest we decided that he came to his fate by colliding with the point of a star, which punctured him and allowed the wind to escape. After loading our nine hundred pound trophy upon one of the machines, I went ahead to break a path with my improvised rotary, the others following me. We reached home safely and were greeted by the Mayor of Denver and a brass band. Upon hearing the details of our hunt, one of the most prominent citizens was cruel enough to hint that I'd better change my brand of—gasoline.

A. B. GLASSER.

ACCORDING to the Chicago *American* "the vast amount of fun to be gotten out of a motorcycle is something remarkable," was the remark of one man at the recent show. Last year at the show this man bought his first motorcycle, and last month became the owner of his second one, this time the machine being for his boy. In speaking of his own experience, which is exactly that of hundreds of others, he said: "My experience with the motorcycle began early last spring. Since then I have ridden 3,000 miles, and though I have tried sports of all description, with varying degrees of enjoyment, there is none of them which is capable of yielding so much actual pleasure as this exhilarating method of traveling about. My health has improved greatly since I started riding, which, by the way, is one of the reasons I am buying one for my boy. I want him to get out of doors, get plenty of fresh air and lay the foundation for good, healthy manhood.

IT is well never to forget that heat expands and cold contracts. It is sometimes the case that there is a loss of compression when the cylinders are hot, although everything is all right when they are cold. This may be due to the expansion of the valve stems by the warming process. When the valve stems get warm they will not permit the valves to seat properly unless a proper amount of clearance is allowed between the ends of the stems and the tappets.

THE LATEST FROM THE OTHER SIDE

By "BRITISHER."

A NEW TENDENCY.—For some years past a few manufacturers have been catering for "free engine" enthusiasts, and placing on the market machines with some type of clutch, usually provided with a starting handle. They never raked in many dibs, but that is rather due to the poor design of their goods than to the intrinsic principle. Their clutches were small, weak and flimsy. The clutch jumped in with a jerk no matter how saucily it was manipulated, and often stopped the engine, while the strains it occasioned accelerated the wear of the bearings to a disgusting degree. Consequently their rivals asserted that the free engine clutch as applied to motorbikes had no possible future. Motorcyclists would prefer a shove, skip and a jump to the end of time. They drew scathing parallels from automobile construction. What designer in his senses would build a chassis with only one speed and employ a clutch for starting on the level, not to mention heavenward towering pimples? However, within the last year or two, two or three makers have begun to fit plate clutches to motorcycles. The cone clutch spelt failure. It is none too sound on an automobile, where large diameters are possible, allowing vast slipping surfaces, and easing springs, together with universal joints to maintain alignment and prevent the fierce grip that comes of skew-wiftiness. But the plate clutch can be made compact and yet afford a tremendous gripping surface, so permitting gentle engagement and a quiet start on the flat or uphill without wrenching all the shafts and bearings. The most juvenile and athletic riders are ordering these plate clutches with avidity, and I think there is no doubt but that all our high class touring roadsters will possess free engine clutches within three years from date. The advantages are as follows:

1. A speed of two miles an hour in stiff city traffic and over bad patches of roadway. 2. Starting without gymnastics or perspiration when clad in stormproof kit. 3. Restarting on up-grades without first coasting down to the bottom again. 4. Fast silent coasting with the engine stationary. 5. Increased ease of handling the machine when dismounting.

Technical details are as follows: The clutch, which contains anything from twenty to forty disks, is mounted in the rear hub. The pedals are coupled up to the driven member of the clutch, so that when astride the machine the engine may be started by pushing the pedal down without lifting the jigger on a pair of steel legs. No handle is required, and when the clutch is engaged the pedals remain available for legwork on grades. The clutch is operated by a tiny foot lever mounted on the footrest. Rear brakes are provided for by clipping a dummy beltrim to the other side of the rear wheel, on which a shoe works, operated by a second footrest pedal. These clutches are going to sell like hot cakes with us, and will probably gain a future among you. They are fetching baldheaded johnnies with corporations into our ranks by the hundreds, who previously funked the gymnastics of the jump mount and the hard work of the pedal-off start.

* *

AUTOMATIC LUBRICATORS.—Another item which is differentiating many of our 1910 machines from previous patterns is the automatic lubricator. I notice that several of your leading makers are very keen on microscopic force pump driven off the camshaft, and the device fitted to the Indian was very favorably commented on at our Stanley Show. At the same time, given a really well-made engine, there is at any rate one notion which is superior to the mechanically operated force pump, because it is simpler and more accessible. It has been in use on this side for over five years, and has always won golden encomiums, but it is admittedly only applicable to engines of topnotch workmanship. It is called the J. A. P. lubricator, and its users show their confidence by dispensing with the auxiliary force pump, which many users of mechanical feeds prefer to retain as a standby. If the joints of an engine are tolerably airtight—and they should be, otherwise oil leaks will disfigure its appearance in use—a partial vacuum is set up in the crank-case by reason of the piston's ascent strokes. On the J. A. P. engines the suction of this vacuum is directed up a pipe to an oil-chamber mounted against the side of the tank. In this oil-chamber is a non-return valve of simple construction, which traps the suction and concentrates it upon the oil-tank through an adjustable drip feed. The suction varies according to the speed of the engine, and regulates the flow of oil to suit running conditions; the faster the engine runs, the more oil it sucks in. This is only what happens with a crank-case pump, but you cannot easily dismount the crank-case pump, neither can you see whether it is working or not. Whereas with the J. A. P. oiler you can watch the oil streaming in through a sight glass, and if it stops you can stand comfortably upright and dissect the apparatus in two seconds without discomfort and without disturbing anything else.

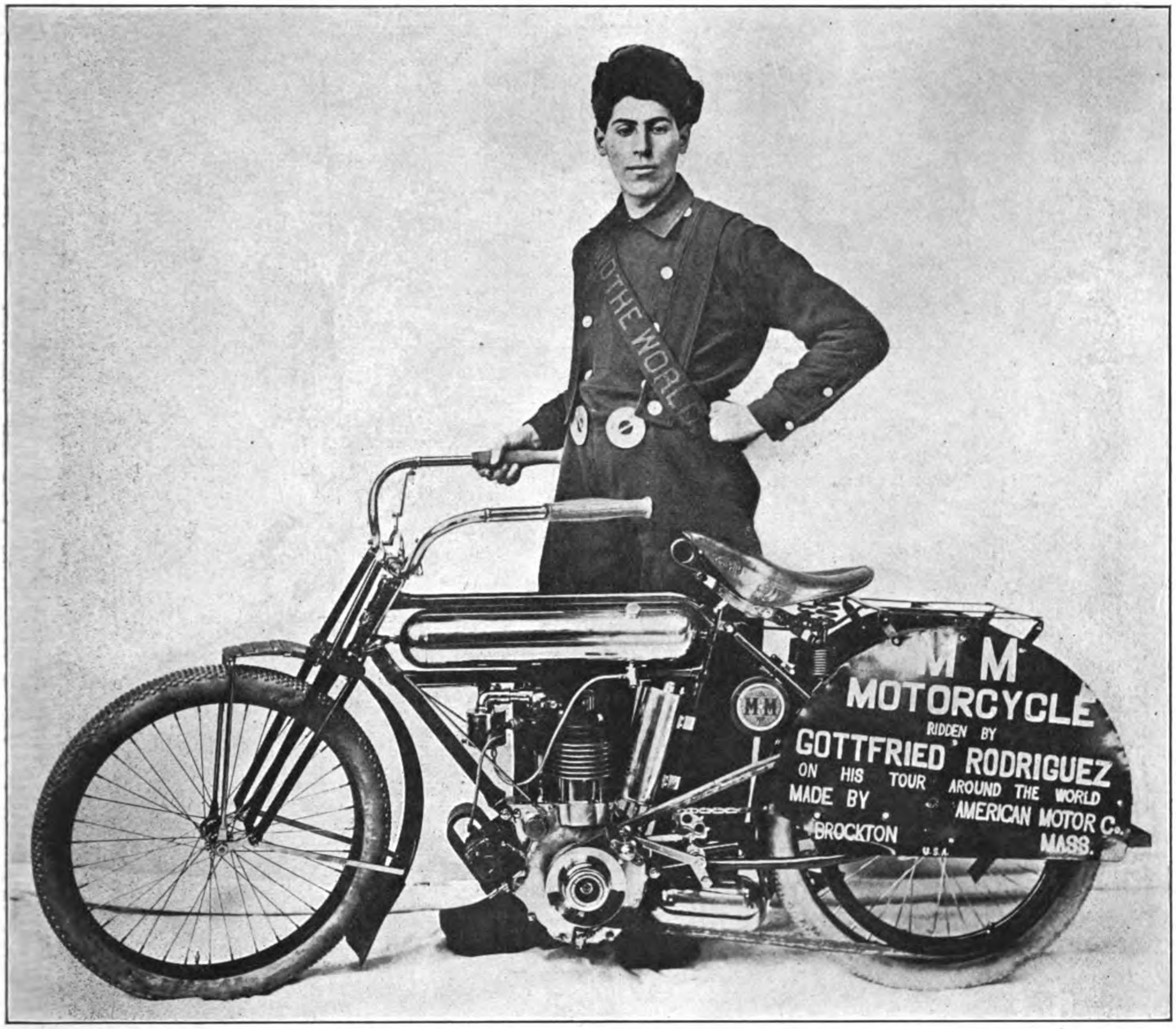
* *

TWO-SPEED GEARS.—I am glad to see your makers are taking up two-speed gears at an earlier stage in your industry than we did. Thousands of British riders have relinquished the sport in time past simply for want of a reliable and efficient two-speed gear, and are slowly returning to it now that the gears are booming. Good gears have been as rare as blackberries in July, and as a consequence our Auto-Cycle Union has been compelled to carefully avoid really difficult hills in framing the routes for past endurance runs. Last year and this they are mustard-hot on the scent of precipices. Between July 4 and 10, the dates of our 1,000 Miles Reliability Trial, our crack riders will have to face two or three hills which in the past were thought too long, too steep, too rough and too twisty for automobile events. The changed policy betokens the boom of the variable gear.

* *

A TIRE STUDY.—I spent a recent Saturday driving round with an endurance trial which our governing body organizes once every three months, chiefly to give new machines a chance to show their paces. A silver rose bowl is awarded for the best score total each year in the four runs, each of which consists of a 125 mile non-stop, with marks for silence, two steep hill-climbs, brake efficiency, accessibility, cleanliness, etc., etc. On this occasion the roads were a sheet of solid ice from bank to bank, and about half the riders fell. The unfortunate individuals were those whose rear wheels were shod with metal-studded tires, which failed to get anything of a grip on the hard ice. Rubber-tired machines, on the contrary, held their grip almost as well as at midsummer. As a consequence there is a distinct slump in steel-stud covers among our all-weather brigade.

Chicago gives the President a motorcycle escort. Good for Chicago, good for Big Bill, and good for the sport!



GOTTFRIED RODRIGUEZ has left Brockton on an M. M. Special to make a tour of the world. When last heard from Rodriguez, who is a Holland newspaper man, was at Syracuse. Rodriguez intends to spend nine months in touring the United States and hopes to visit practically every city of importance.

MOTORCYCLE SHOW FOR LOS ANGELES—A HUNDRED EXHIBITS ARE EXPECTED.

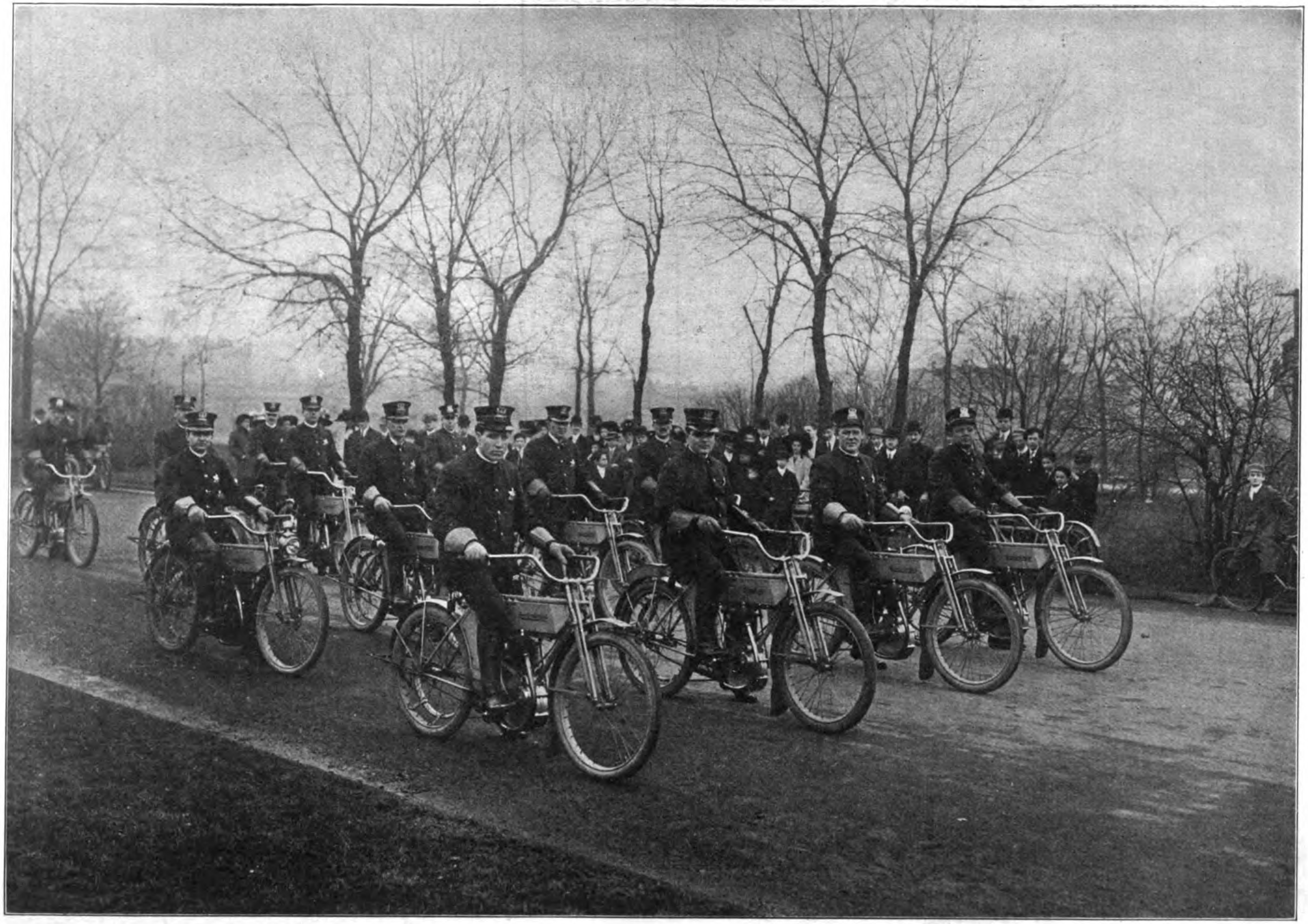
THE Los Angeles Motorcycle Club, which has been known for years as the originator of things motorcycling, has decided to run an exclusive motorcycle show. This will be the first motorcycle show in the world, for until now motorcycles have been shown as part of an auto or bicycle or sporting goods show. The First Annual Los Angeles Motorcycle Show will be held on March 23 to March 26, inclusive, and the clubhouse of the Los Angeles Club will be used to house the exhibits.

From present indications there will be twenty-four factories represented with about a hundred machines on exhibition. It is expected that seven makes of tires will be shown by the local representatives of those seven factories, while motorcycle clothing, lamps, speedometers, tandem attachments, spring forks and spring seats and other supplies will make up the rest of the show.

The fine club-house of the L. A. M. C. is located at the corner of 22d and San Pedro streets, and was formerly a hospital, with extensive grounds about the big three-story building. In the rear is a garage and a large gymnasium, all of which will be available for the show. It will be handled for the club by a general committee, divided up into the following special committees:

Decorations, O. T. Stanton (chairman); W. C. Cannon, A. Porteous, A. Menegay and T. W. Jackson; contracts, C. F. Gates (chairman), A. J. Johnson and Howard Shafer; reception, Captain C. E. Anderson (chairman) and full committee; press, S. L. Lyon; tickets, A. J. Johnson (chairman), S. L. Lyons and C. E. Anderson; general manager, Charles Fuller Gates.

There are now about two thousand motorcycle users in Los Angeles city and about 200 in San Diego. Riverside also registers its quota of motorcycle users. The large agencies will take several spaces and exhibit two or more models. Risden says that he will have five Indians at the show and the famous racing machines. He will be assisted by the representatives of the factory. A. Freed will come down from San Francisco to personally look after the Thors. In fact, all the leading California dealers will be there.



President Taft's Escort In Chicago Parade—Motorcop Squad Mounted On Excelsiors

ESCORT TO THE PRESIDENT.

OPPOSITE we reproduce a picture of the Chicago motorcop squad which will act as an escort to President Taft in the parade of March 17. The squad recently made the run from 16th to 55th streets, on Michigan boulevard, at less than seven miles per hour, but it is desired to reduce this rate of travel to four miles per hour before the time of parade in order to hold the pace of the marching portion of the procession.

The present squad, which is in addition to the three who received their machines about October 1, comprises fifteen men, none of whom had ever ridden motorcycles up to the time of beginning their instruction about two weeks ago. The fact that they could maintain this low rate of speed for a distance of five miles without overheating their motors speaks highly of their rapid grasp of the control and operation of the machines, all Excelsiors.

An amusing incident occurred during a practice run. A chauffeur driving out Michigan boulevard come up behind the group of slowly moving officers and not realizing from his rear view that they were policemen, but taking them apparently for National Guardsmen, he loudly ordered them to break away and not take up so much room, and when they did not break away quickly enough to suit him, he crowded his machine into the line. When he found himself surrounded by fifteen husky and unpleasant-visaged policemen, he so nearly collapsed that they let him go with nothing more than a verbal chastisement.

* *

CALIFORNIA WOMEN ENTHUSIASTS.

A FEW of the Curtiss riders of Oakland rode their motorcycles over to Pleasanton a week ago Sunday. There were a number of women in the party. Miss Tallman rode with one of the men, but Mrs. Karslake, who is one of the most enthusiastic riders in the State, rode a twin cylinder machine alone and experienced no difficulty in keeping up with the fastest of the men riders, nor in making the hills which are encountered on this route.

George Johnson made this his initial trip on a twin cylinder and is now a strong enthusiast for the delights of motorcycling. Among those who made the run were J. H. McBride, G. H. Bradnor, Miss Tallman, A. H. Mangels, George Johnson, P. L. Peterson, Miss Henry, William Jones and Mr. and Mrs. Karslake.

One of the Curtiss riders of the South reached San Francisco Monday, having ridden up from Mohave. He reports rather poor roads over a considerable part of this trip, but he met with no serious trouble, and his machine acted splendidly.

N. Toombs, a resident of Alameda, who is at present employed in Gilroy, rode up from that city recently and induced a friend to purchase a new Curtiss machine, and rode back again the next day. While Toombs was out showing his friend, H. P. Atkinson, of Gilroy, what fun it is to ride a motorcycle, one of the Oakland police arrested the former for riding with his muffler open. Expense, $10.

* *

LOS ANGELES PIONEERS PRODUCE A NOVELTY.

SINGER BROS., of 2218 South Main street, Los Angeles, are the manufacturers of a double opposed twin cylinder machine having an engine with a 3¼ inch stroke and a 3¼ inch bore. The displacement of the two cylinders is sixty-one cubic inches and the motor will develop seven horse power. The wheel base is sixty inches and the wheels are fitted with 2½ inch Empire, Morgan & Wright or G & J tires. The construction of the frame is such as to give a low and easy riding position. The spring fork is of a special design and the invention of Joseph Singer, who tried it out successfully last year. The Singer Brothers also build a single cylinder machine.

CHAPPLE TO RACE ON MERKEL MACHINES.

A. G. CHAPPLE, for some time associated with the racing department of the Hendee Manufacturing Company, has just made a change which will undoubtedly be productive of many interesting track and road contests in the East this spring and summer. Chapple has signed with the Merkel-Light Motor Company, to take charge of the Merkel team that will compete in the New York Club quarterly trials and other big competitive events in the East. Of course, Chapple will himself ride a Merkel whenever the opportunity to prove his mettle presents itself. There is no question of his making good. He enjoys the distinction of having gone through the past three national endurance runs with a perfect score in each instance, and he is "some daredevil" on the track.

While Chapple will represent the Merkel folks in the East, Hubert Kettle will be their star performer on the Pacific Coast. Kettle is a rider of great promise and the combination bids fair to be productive of some first-class racing publicity for the Pottstown firm.

A. G. Chapple in His Racing Togs.

MOTORCYCLES IN EUROPE.

IT seems from the figures shown in a recently compiled table that the proportion of motorcycles to cars is much larger in most of the European countries than it is in the United States. In Italy there are 5,079 cars and 4,031 two-wheelers. Switzerland, which is largely mountainous, has 2,702 cars and 2,000 motorcycles. Of a total of 41,000 motor-driven vehicles in Germany, almost two-fifths are motorcycles. In Belgium there are 3,000 motorcycles and 2,500 automobiles. France has 37,500 and Holland 10,800 motor vehicles of all classes.

* *

Dost hear the rattle and bustle of machines being taken out of cold storage?

THE FEDERATION

SYRACUSE, N. Y.—The local motorcycle club has extended an invitation to the Board of Directors of the F. A. M. to hold the 1910 national assembly of that organization in Syracuse. The letter of invitation from the Syracuse Club was supplemented by one to President Willis and Secretary Cook from Secretary Harlow C. Clark, of the Chamber of Commerce, while Mayor Edward Schoeneck was invited to send one as chief executive of the city. Letters were sent the New York State Fair Commission asking the co-operation of that body in securing the meeting for Syracuse. The second week in September has been suggested because of the fact that visitors can then attend the New York State Fair and the Ka-Noo-No Carnival and also participate in the races on Automobile Day. Last year these races, in which there were fifty motorcycle entries, were witnessed by a crowd of 30,000 people. The Syracuse club believes this would be an excellent time to decide the F. A. M. championships specified for the national assembly.

The membership of the club is now classified as resident, non-resident and honorary, instead of active and honorary. Arthur D. Cummings, Ralph D. Haywood and F. D. Martin have recently been elected to membership. Requests have been received from newly organized clubs at Cortland, Pittsburg, and at Albany for copies of the club's constitution. Binghamton has a new club with twenty members, and Syracuse would like to hear of the organizing of a club at Utica.

The constitution of the Syracuse Club has been revised. Under amendments provision is made for non-resident members. It was voted to appoint a committee to appeal to motorcycle dealers to secure from the purchasers of new machines an application for membership in the club. Announcement was made of the appointment of the following entertainment committee: Allen C. Groves, chairman; E. L. Day, J. M. Gillespie, John Brown and Harold F. Turner.

* * *

LOCAL COMMISSIONERS IN MARYLAND.

THE following local commissioners have been appointed by Howard A. French, F. A. M. State Commissioner of Maryland; Hubert H. Wright, of Cambridge; Jesse I. Renner, of Midway; O. W. Hess, of Union Bridge; M. L. Nicodemus, of Mt. Airy; S. W. Kent Miller, of Hagerstown; Murray Brisch, of Frederick, and H. M. Gilson, of Cumberland.

* * *

FIRST F. A. M. CLUB IN RHODE ISLAND.

AMONG the progressive New England organizations is the Rhode Island Club, the first in that State to become affiliated with the F. A. M. The club meets at 172 Pine street, Providence. Its charter is to be held open until the membership total reaches 50, a consummation which the officers confidently expect to bring about in the course of a few weeks.

* * *

HAROLD FLETCHER, New York State Commissioner, has tendered A. V. Brewster, president of the Syracuse Club, the appointment as F. A. M. Commissioner of Syracuse.

* * *

ALTHOUGH there has been comparatively little racing on the Los Angeles Coliseum track this winter, largely because of some internal dissension, Manager George T. Kraemer is authority for the statement that a number of good meets will be conducted before the opening of the summer season. Another drawback has been the lack of racing machines, a difficulty which is said to have been obviated.

THE CLAN EXCELSIOR

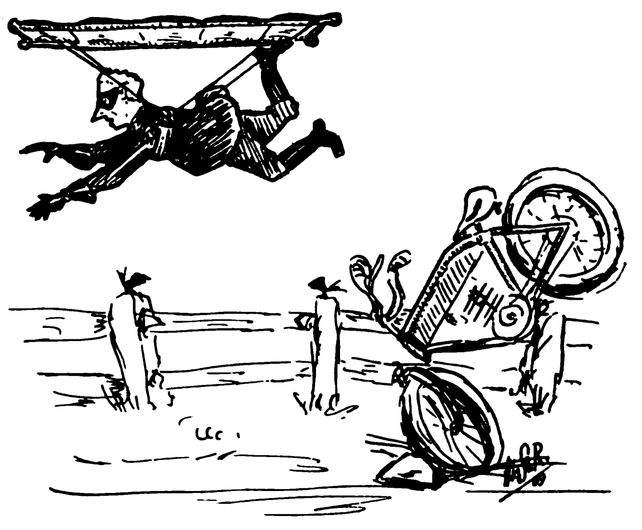
CHICAGO CLAN EXCELSIOR is the name of the organization composed entirely of riders of the Excelsior machine. This growing fraternity has a clubroom at 1438 Michigan avenue. Russell Wiles, an attorney, who succeeded in reducing the wheel tax on motorcycles, largely through individual effort, is president of the Clan Excelsior which, aside from the fact that it is a "close corporation," is affiliated with the Federation of American Motorcyclists.

Clan Excelsiors exist all over the country, hailing each other from the mountain tops, as at Colorado Springs, Leadville and Cripple Creek, suggesting the clans made historic in poetry by Scott. They are equally numerous in the prairie towns and in the East. Through the influence of Frederick B. Hart, of the Excelsior concern, who is on the membership committee of the F. A. M., all these neighborhood clans are being admitted to the larger organization, thus swelling the membership in every State in the country.

Plans are being made for a Clan Excelsior run next summer to Springfield, Mass., providing the annual meeting of the F. A. M. takes place at that city. The start will be made from Chicago, and riders of Excelsior machines will be added to the parade as the cavalcade passes through various towns along the route. Motorcyclists do not deny that they are "clannish" in the desire to ride with owners of the same make of machine.

Aside from the above mentioned organization, there are several other Chicago clubs made up of riders of a favorite motorcycle. The Indian riders have been organized for several years, and annual contests and runs take place in which no other make of motorcycle is entered. Members of the Indian Club swing around the Aurora-Elgin-Chicago triangle frequently for Sunday exercise, and the organization exerts a beneficial influence on the sport and the pastime.

Another "secret" order is the M. M. organization, composed of riders of the machines of that name. Several long journeys have been made by this club, one run of last year being to New York and return. The M. M. machine enjoys a widespread popularity in this section, and the membership is large.



DON'T FORGET YOUR AERO-GLIDERS

MOTORCYCLE ILLUSTRATED

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J. Leo Sauer

L. H. Cornish - - - - - - - *Advertising*

A YEAR AGO AND NOW

A Comparison of Our Circulation Figures

MARCH 15, 1909..................... 3,750
MARCH 15, 1910..................... 6,150
GAIN IN ONE YEAR, 2,400 COPIES;
INCREASE, 64 PER CENT.

FULL VALUE TO ADVERTISERS

TWO-SPEED GEAR AND FREE ENGINE.

A REMARKABLE change has recently been noticeable in the views of some of the leading foreign writers on motorcycling topics who at one time decried all free-engine devices as useless for all practical purposes. One well known handbook—a sort of "Enquire Within" of motorcycling, published a year back—goes so far as to say that the only merit of a free-engine clutch is that it makes the machine easier to handle when dismounted. These views have since been reconsidered, and it may be admitted right away that the early objections to the free-engine clutch were largely due to the unsatisfactory specimens that were offered.

The writer was standing outside the post office in a country town, having just caught the mail with about two minutes to spare. A motorcyclist rode up, stopped his machine and leaned it against a post, but kept the engine running, and, after posting a letter, threw his leg over the machine and went away from a standing start as easily and comfortably as though his conveyance had been a taxi-cab. In the few seconds during which the machine was left at the roadside quite a crowd of interested spectators had gathered, who seemed attracted by the spectacle of a stationary motorcycle having its engine ticking steadily away. It should be remembered that under similar circumstances the convenience of the clutch would appeal to almost every rider, and it is a great mistake to assert that free-engine devices are only for the old, the infirm, or the nervous.

* *

WHAT'S THE MATTER WITH BOSTON?

HISTORY has repeated itself in Boston. The Show, in a motorcycle way, was a distinct failure. It were foolish to claim anything more of it. It was all so patent that there is more than ever among the manufacturers a disposition to "pass up" the Hub motor exposition. It seems a shame, and yet one cannot forever hope against hope unrealized. The car folk find New England not half bad, and their criticisms are far less severe than those of the motorcycle makers. Still, there is a goodly number of riders in the New England States and the rate of increase is probably as high as it is anywhere else in the country, with very few exceptions. The secret of the ever succeeding disappointments which are given expression by members of the motorcycle trade during Boston Show Week may be discoverable in the fact that the Garden Show draws much of the business that geographically belongs to Boston. If anyone has a better guess to voice, we should be only too pleased to hear from him, for we are quite at loss to suggest any other solution.

* *

WILL BE THE MOST POPULAR OF ALL.

THE Chicago *Automobile Journal* has at last recognized the little brother and added to its attractions a first class motorcycle department. Many members and owners of big cars are taking notice of this trim, inexpensive little vehicle, and use them in many cases where they don't care to employ their Pierces and Packards. Mr. Ayers in a recent article goes so far as to state it as his belief that the motorcycle is destined to become the most popular vehicle in all America. Mr. Ayers is one of the most popular members of the Chicago Automobile Club, and his opinion thus publicly expressed is considered significant as to the trend of thought among the automobile class, due to the radical improvements recently made, and also to the efforts of the faithful geniuses who have wallowed through grease and dust and "blazed the way."

* *

TABLOID MOTORISMS.

Our local contemporary persists in begging the question. Since it will not admit that Greene was not reinstated, it is useless to further argue the already overmooted question. There can be no controversy unless there be some common ground for the disputants.

* *

Great is the influence wielded by the dealer, and nothing less than wonderful the opportunities which lie open to progressive intermediaries between the factory and the public.

* *

The women folk are being enlisted in all parts of the country. Riders of the gentler sex will have to be counted by the hundreds much sooner than many anticipate.

* *

Clubs are rising here and there like the proverbial mushroom. The 1910 crop is of the bumper variety—a most encouraging sign.

* *

Is 1910 to prove to be a two-mile-a-minute year? Few will dare to bank their reputations upon an adverse prediction.

* *

Fortunately, the New England motorcycle spirit need not be judged by the amount of business done at the Boston Show.

WITH THE CLUBS

LOS ANGELES CLUB'S ELABORATE PLANS.

THE annual summer tour of the Los Angeles Club will in all probability be conducted in connection with that organization's endurance run. In addition there will also be in all likelihood big road races for trade riders and professionals. Although the details have not yet been worked out by the committee in charge, consisting of Messrs. Chas. F. Gates, Hubert Kettle and Captain Anderson, the affair will take place some time between May 27 and June 3, as the annual endurance run is always held on Decoration Day and the day before or after. This year the endurance run will start on Sunday, the day before Decoration Day, and the route will be through the back country by way of Pomona, Corona, Elsinore, Temecula, Bonsall and thus on to San Diego. The second day's run will be from San Diego to Ensenada, Lower California, through National City, Nestor, Tia Juana, Carriso Canyon, Guadaloupe Mission, the Russian Colony and Sousal near Cape St. Miguel. It may be decided to extend the route below Ensenada to Santa Tomas Mission and back to Ensenada to make the 300 miles required by the F. A. M. rules.

The proposed races will in all probability be started in front of the Los Angeles *Examiner* office and be run over the route through Ensenada to San Diego, a distance of 225 miles, with a schedule of about 20 miles an hour and a time allowance for traveling through towns and cities. The annual summer tour will probably be started from the club house on Friday or Saturday, with San Diego as its destination, some time Sunday afternoon. The programme will be filled in with other events to make it thoroughly interesting to all participants. The prospects are that the three days' affair will attract the largest number of riders ever gathered together for one event in the history of the sport in the United States.

* *

CONCOURSE ELECTION OF OFFICERS.

THE annual election of officers of the Concourse Club was held at its headquarters, Jerome avenue and 165th street, Bronx, New York, on March 8. There was a large number of members present and much interest shown in the nominations and elections. Maurice P. Sullivan, who is known far and wide among motocyclists as an ardent and enthusiastic devotee of the sport, was elected president after a spirited contest. The following other officers were chosen, all of them being active and energetic riders: Benjamin D. Lott, vice-president; Joseph Rehrman, recording secretary; Clinton L. Frobisher, corresponding secretary; Leo Herberger, financial secretary; William A. McClelland, road captain; Vandervoort H. Downes, first lieutenant; Eugene C. Lesser, second lieutenant.

It was also arranged to hold the annual dinner of the club at the Hotel Gerard on April 5, and to invite the members of the clubs affiliated with the Metropolitan Association. The charge per plate will be $1.50, and a good time is promised by the committee in charge of the affair.

* *

SOME time ago a committee was appointed to secure larger quarters for the Providence (R. I.) Club. This committee now has in view some centrally located rooms facing Exchange place, and it is expected these rooms will be secured. Because of the lively interest shown in motorcycling it is believed that the membership will be more than doubled the coming season.

CHICAGO CLUB'S RAPID GROWTH.

AT the Saturday night smoker, which has become the regular thing at the Chicago Club House, there was a great deal of motorcycle interest shown. The smoker was very well attended, the club having the pleasure of the presence of Mr. B. B. Ayres, the first president of the club, also Captain Yates, the first captain of the club, and many other prominent motorcycle people of the city, both in and out of the trade. The attending members received a most hearty welcome and enjoyed a very pleasant evening. Refreshments were served, and an orchestra added further to the entertainment. A number of speeches were called for and given by prominent members. One of the principal topics of the evening was the first club run, which will be held very soon.

The roads have opened up in such a satisfactory manner that interest is keen. The increase in the membership has been remarkable since the establishment of the new club house last fall. During the Chicago Show over forty new members were taken into the club. The fine club house occupies the entire building, which is very well equipped from the cellar to the top floor. The basement is used as a garage, on the first floor are located the main club and reception rooms, and on the second floor there is a pool room which is equipped with every possible convenience, as well as several smoking rooms. The location of the club on the Boulevard makes it very convenient for members in all parts of the city.

During 1910 there will be a number of race meets on the Libertyville and Hawthorne tracks, in which all makes of motorcycles will compete. There is every reason for the club to expect a brilliant future, in view of its progressiveness.

* *

A CLUB IN MALDEN, MASS.

MALDEN, Mass.—At a meeting held at Morton & Co.'s shop the evening of March 3 a club was organized, headed by the following officers: President, Arthur Morton; secretary and treasurer, Aubrey Egland; road captain, Godfrey Hanson; first lieutenant, Charles T. Rich; second lieutenant, Harold Guild.

* *

MEMBERS OF TRI-CITY COMMISSION.

BACK row, left to right—James J. Malone, Rochester; Howard K. Ganson, Buffalo; A. V. Brewster, Syracuse; Charles P. Strogen, Rochester.

Front row, left to right—George W. Fenner, Syracuse; Dr. Clinton W. La Salle, president, Rochester; W. Graham, secretary, Rochester; J. M. C. Gillespie, treasurer, Syracuse; W. E. Nevius, Buffalo.

THESE are the officers of the Portland Club, 424 East Alder street, Portland, Ore. Reading from left to right: Herbert Hussock, secretary and treasurer; P. L. Abbott and E. H. Stone, board of directors; L. T. Dean, president; Charles S. Dyde, vice-president; Fred Nowotny, press agent. The club, reorganized Feb. 1, has very cozy club rooms and a membership of forty. It will conduct a race meet May 1, the first motorcycle track races ever held in Portland.

* *

NEW QUARTERS FOR HARLEM CLUB.

PART of the building at 61 W. 124th street has been rented by the Harlem Club to be used as the club's headquarters, comprising a gymnasium, pool room, reading and meeting rooms. The place will be open to members every night and all day Saturday and Sunday. Machines will continue to be stored at 1419 Fifth avenue. The new quarters were opened on Monday night, March 14, after the regular meeting of the Metropolitan Association. All the boys are enthusiastic over their new enterprise and the officers of the club are confident that it will mean a large increase in the membership. They are particularly anxious to bring the list up to 100 by the opening of the 1910 season.

* *

BINGHAMTON CLUB ELECTS.

WITH W. H. Wolfe in the chair, an interesting meeting of the Binghamton (N. Y.) Club was held on March 3. The applications of three new members were accepted and the following officers were elected: President, W. H. Wolfe; vice-president, William H. Hemstrought; secretary and treasurer, E. Howell; captain, E. G. Morse; first lieutenant, W. Brown; second lieutenant, C. Campbell. Meetings will be held every other Thursday.

* *

ST. LOUIS CLUB RE-ELECTS PRESIDENT.

W. GOODRICH was re-elected president at the recent annual meeting of the St. Louis Club. In addition to President Goodrich the following were chosen officers: Albert Voight, vice-president; Emil Menhomer, secretary; B. C. Hopkins, treasurer; Tim Bahnsen, captain; Robert Orr, lieutenant; Jerry Tyler, sergeant-at-arms, and Heywood Thompson, press agent. The membership of the club is increasing very rapidly, so much so that arrangements have been made to obtain club headquarters, which will be opened the first of next month.

* *

ANOTHER ONE IN CALIFORNIA.

ABOUT a score of Santa Ana (Cal.) riders recently organized a club, of which R. H. Brinkerhoff is president; W. W. Vestal, vice-president; R. L. Freeman, recording secretary; H. W. Koehler, treasurer; M. E. McClay, financial secretary, and Roy Spangler, captain. The club's first run was made to the San Juan Capistrano Mission on Sunday, Feb. 20.

PITTSBURGHERS ORGANIZE.

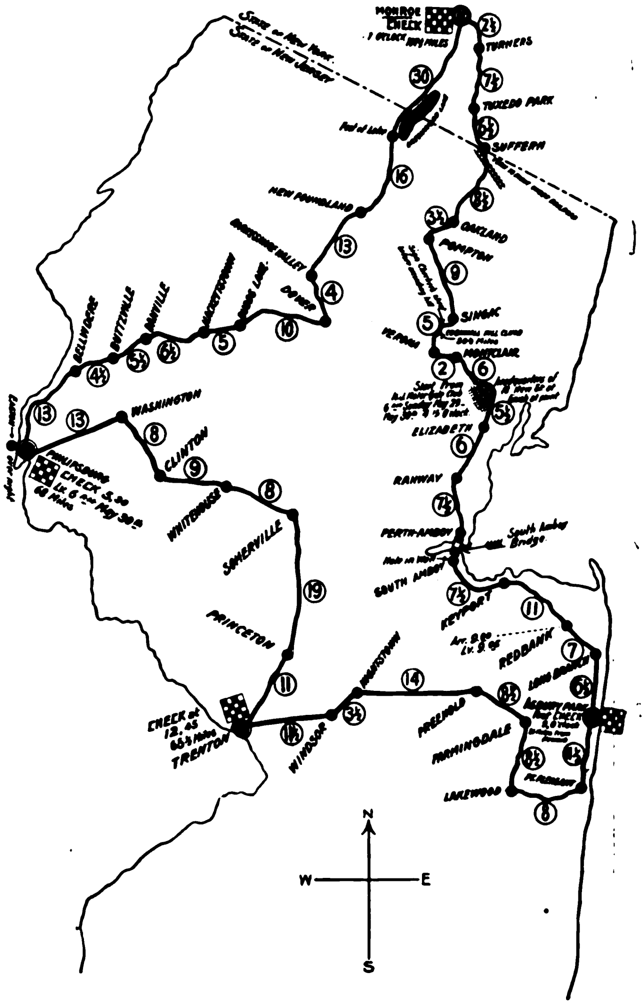
AT a meeting held Feb. 26 at the Hotel Dorset, the Pittsburgh Motorcycle Club was formally organized, the following officers being elected: F. J. Walz, president; R. L. Glenn, secretary; E. B. Connell, treasurer. A club house committee composed of three members was appointed with instructions to report at the next meeting on desirable locations for a club room. Thirty riders joined the club. The club is now on a firm foundation, with a guaranteed membership of seventy-five. A charter will be applied for. The North Side contingent guaranteed twenty new members, while Homestead, Wilkinsburg, Sharpsburg, Braddock and the other surrounding towns have all sent in their quota.

Plans will soon be made for the first race meet early in the spring. If possible the Brunots Island track will be secured. This is conceded to be the fastest one-mile dirt track in the United States, if not in the world, for exhibitions of motor driving vehicles.

* *

JERSEY'S BIG DECORATION DAY EVENT.

THIS is the route of the endurance run to be conducted on Decoration Day and the Sunday following under the auspices of the New Jersey Club. The entrants will be divided into four classes, viz.: private owners, trade riders, tandem class and those participating in the Ladies' Club Social Run. Each rider will start with 1,000 points and the penalties will be the same as last year. There will be gold, silver and bronze medals awarded in each class and also several special cups. R. B. Whitehead, of 161 Washington street, Newark, is chairman of the Endurance Run Committee and entry blanks may be had from him or at the headquarters of the club.


State of New York
State of New Jersey
MONROE CHECK
1 O'CLOCK 109½ MILES
2½
TURNERS
7½
TUXEDO PARK
6½
SUFFERN
30
Head of Lake
16
NEW FOUNDLAND
8½
3½
OAKLAND
POMPTON
13
DOVER
4
10
5
6½
5½
4½
BELLVIDERE
BUTTZVILLE
9
SINGAC
5
VERONA
MONTCLAIR
2
6
5½
ELIZABETH
6
RAHWAY
7½
PERTH-AMBOY
South Amboy Bridge
SOUTH AMBOY
7½
KEYPORT
11
Arr. 9.50
Lv. 9.55
REDBANK
7
LONG BRANCH
6½
ASBURY PARK
8½
14
FREEHOLD
FARMINGDALE
8½
7½
LAKEWOOD
8
13
13
WASHINGTON
8
CLINTON
9
PHILLIPSBURG CHECK 5.30
Lv. 6 a.m. May 30th
68 Miles
WHITEHOUSE
8
SOMERVILLE
19
PRINCETON
11
CHECK at 12.45
65½ Miles
TRENTON
10½
WINDSOR
3½
N
W
E
S

BELTS AND CHAINS.

LEATHER belts should be well scraped, or brushed with a file card on the sides, and dressed with Collan oil. Any rivets which may have pulled through should be replaced, putting a washer under the head of the rivet large enough to prevent a recurrence. Only chain belts and one or two others like the Watawata should be coiled up tightly when carried as a spare, as the small coils stretch and weaken the canvas or solid leather, as the case may be. Rubber and canvas belts should be freed from all dust and mud, and any exposed portion of the canvas, if not gone too far, may be given two or three coatings of rubber solution by way of waterproofing. This may also be applied to the cut ends of the belt, and so, by keeping the wet out, lessen the chance of rotting the canvas and the fasteners pulling through. Be sure that your spare fasteners are in working order, and always carry two spares. If you desire to be really self-reliant, carry a complete spare belt ready cut and stretched to the correct length, and fitted with a fastener.

As regards chains, both for driving the back wheel and the magneto, there is no better method of cleaning them than washing them first in paraffin, hanging them up to drain, then, after previously heating the chain, immerse it for fifteen minutes or so in melted Russian tallow. The tallow should then be allowed to cool sufficiently to show signs of thickening, when the chain may be removed. If it be taken out before the tallow commences to solidify the hot grease will drain out of the joints.

* *

FORT WORTH RIDERS ORGANIZE.

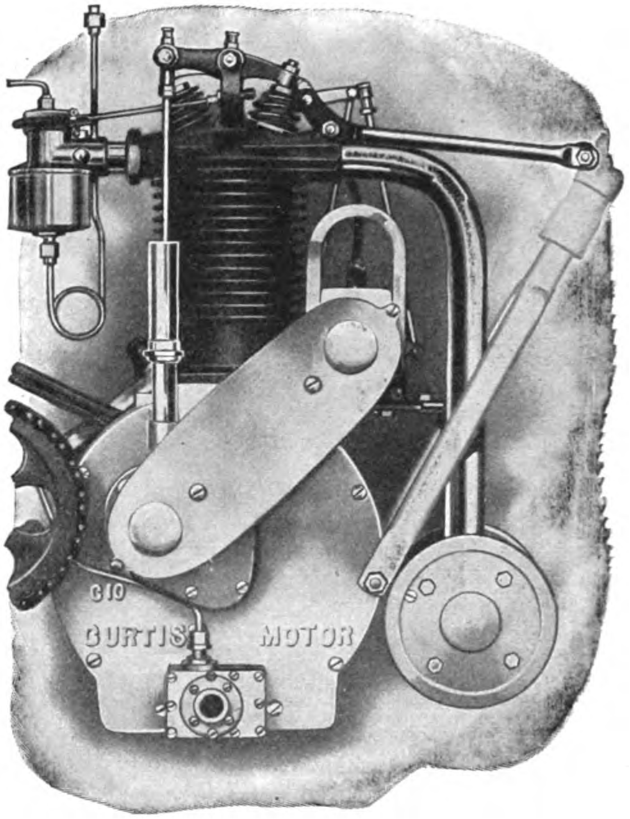
THE Panther City Club recently completed its organization at a meeting held in Ft. Worth, Tex. The executive committee is composed of the officers of the club and Messrs. Graves, Bayless, Ligon and Bond. Other committees are as follows: Membership, Harrison, Bond and Bayless; house, Simpson, Ligon and Luther. D. R. Graves and R. S. Bayless were elected captain and lieutenant of runs. R. A. Pickens of Dallas was elected to membership. The first and third Thursdays in each month were selected as the formal meeting dates.

* *

WANTS COMPANY FOR A TOUR.

HENRY W. JOHNSON, of 290 Spring street, Aurora, Ill., is anxious to correspond with anyone who would care to make a one or two weeks' tour with him some time during next summer. He rides a Harley-Davidson. He has no particular place or route in view and will be pleased to consider any suggestions from interested riders living in his locality.

H. W. Johnson.



A MARVEL MOTOR FEATURE.

UNLIKE that of any other machine, the entire power plant of the Marvel, illustrated herewith, is one unit. In other words, every part of the motor and its fittings are so coupled that the latter can be disconnected from the engine merely by loosening three bolts, the feed pipes, control wires, etc., coming away all in one piece. This arrangement is claimed to be ideal in case of trouble on the road, in which event any part of the engine can be dissected without disturbing any other. For example, the carbureter can be taken off simply by loosening one nut and unhooking the control wires. That done, the carbureter may be taken to pieces for inspection simply by unscrewing one nut. Riders will recognize in this feature of the Marvel something that is entirely worth while, and it ought to add considerably to the popularity of that machine.

* *

INDIAN FIRST IN HILL CLIMB.

THE Automobile Trade Association of Oakland and Alameda County, Cal., held its first climb of the season on Feb. 27, on the Oakland avenue hill. The distance was 6/10 of a mile, with grades varying from 15 to 20 per cent. nearly all of the way, and the steepest part on the last half. A large portion of the road surface was clay, and the wet weather had made it quite slippery. Among the automobiles the best time recorded was 52 1/5 seconds, which was made by two different machines; but the Indian, ridden by W. G. Collins, made its demonstration of superiority by covering the distance in 40 seconds flat, at the rate of about 54 miles per hour.

* *

The president of the Chicago Automobile Club predicts that the motorcycle will ultimately become the most popular means of transportation. Such recognition is significant.

* *

Regarding our circulation? The same old story—going up, up, all the time, steadily and without interruption.

CROSSING THE CONTINENT.

ON Feb. 5 J. Sorensen and V. E. Davis, both members of the San Francisco Club, left San Francisco for a trip across the continent on motorcycles. They had very pleasant riding to Los Angeles where they spent five happy hours with the boys there and also a little time in God's chosen country (Redlands, Cal.). Thereupon they left all good things behind and started on their long, weary grind across the desert, riding railroad ties in the extreme heat, pushing through deep sand, paying sixty cents per gallon for gasoline and "getting it handed to" them in every way possible. The limit was reached when a fellow in Yuma, Ariz., tried to charge $2 for storing the machines over night.

Both are riding 1909 Indians, which have stood the test wonderfully well in spite of 600 miles of bouncing over the ties. At El Paso, a flourishing town with a motorcycle club and a lot of good fellows, they were welcomed most cordially. The two riders are now on their way to Dallas. Sorensen will stop in New Orleans, where he will reside. Davis will go on to New York and expects to return to San Francisco, a la motorcycle, via Chicago, St. Louis and Denver. Davis' machine is equipped with the Morgan & Wright tires.

RACE MEET AT NEW ORLEANS PLANNED.

HOMER GEORGE, secretary of the New Orleans Auto Club, is arranging plans to conduct a motorcycle carnival some time in the spring. He has been in communication with Arthur Mitchell, Freddy Huyck and Frank Cadwell, the latter manager of the Springfield track.

ANOTHER ENTHUSIASTIC CHAP.

LEROY HENDRICKS, son of Mayor A. R. Hendricks, of Sterling, Ill., announces his intention to leave April 1 with the purpose of girdling the globe. He says he will take no money with him, but earn his way by painting signs.

* * *

DES MOINES has a club. The preliminaries were arranged at a meeting recently at which D. C. Coggswell was elected temporary chairman and Gilbert Smith temporary secretary. Permanent organization will be effected March 17.

* * *

PRESIDENT WILLIS has appointed C. F. Ball, of Indianapolis, as successor to Le Roy Cook, who recently resigned the secretaryship of the F. A. M.

V. H. MOSS is a Rome (Ga.) rider who enjoys the distinction of having ridden one-half a mile on a one-half mile dirt track in 35 seconds. Moss accomplished this feat on a 3 h. Torpedo racing machine.

EXCITING RACES AT LOS ANGELES.

LOS ANGELES, March 6.—A spectacular accident, in which Ward was lucky enough to suffer only a damaged nose, and a track duel as desperate as any ever seen on the Coliseum motorcycle saucer, between Seymour and Balke were the features of this afternoon's racing program. When Balke and Seymour found themselves the only two contestants left in the amateur field, because of the previous accidents to Ward and Graves, they seemed to feel the spur of the spotlight, and set about to give the 3,000 or 4,000 shouting fans as thrilling a fifteen minutes as the average man's nerves can stand.

This race had come as a finale to the amateur event in which Ward and Graves had been hurt in an ugly spill. Despite the accident Balke and Seymour had kept on their course, and Balke had crossed the tape ahead, but had been disqualified because of fouling, riding far too high on the track to be within the rules. So, when he repeated his defeat of Seymour, and did it minus the fouling, for a moment the little brown-faced lad became a real hero. The time, 14:40 for the fifteen miles for single cylinder machines, shows how desperate a race it was. The summaries: Six-mile, private owners, stock machines, 30.50 cu. ins.—Clarence Briggs, won; F. Montgomery, second; R. Neiderhauser, third. Time, 6:42. Ten miles, amateur open, 48 cu. ins.—H. Kittle (Thor), won; Graves (Indian), second; Seymour (R-S), third. Time, 9:09. First heat, 6 miles, professional match, two out of three—Whittier (Merkel), won; Lingenfelder (Indian), second. Time, 4:55. Six miles, amateur open, 61 cu. ins.—Seymour (R-S), won; Balke (Thor), second; H. Kittle, third. Ward and Graves hurt and stopped. Balke disqualified from first for fouling. Time, 5:10. Second heat, match professional—Whittier, won; Lingenfelder, second. Time, 4:51. Twelve miles, open professional—Lingenfelder (Indian), won; Whittier and Mitchell (Merkels), didn't finish. Time, 10:19. Fifteen miles, amateur open, 30.50 cu. ins.—Balke (Thor), won; Seymour (R-S), second. Time, 14:40.

MORE EXCELSIORS FOR CHICAGO POLICE.

A CONTRACT for twelve additional machines for the Chicago Police Department has just been awarded to the Excelsior Supply Company. The important points in the specifications of the machines required were free engine, drop forged frame fittings throughout, copper or brass tanks and a rate of speed variable from four to fifty miles an hour. Estimates were received from five of the leading manufacturers, and the Excelsior folks were the successful bidders.

GOOD RACES PLANNED AT HOUSTON.

AMONG the attractions on San Jacinto Day at Houston, Tex., will be bicycle and motorcycle road races, arrangements for which are now being made by George W. Beardsley and Austin W. Burgess. The races will take place April 21 and the finish will be at the San Jacinto battle ground, about twenty miles from Houston. It is believed that there will be about a score of entries in the motorcycle division.

DECORATION DAY MEET IN POUGHKEEPSIE.

MEMBERS of the Poughkeepsie Motorcycle Club are making arrangements for a big motorcycle meet for Decoration Day. The meet will be held at the Hudson River Driving Park. Jacob Ruppert, owner of the park, signified his willingness to open the park to the event and the races will take place on the fine track there.

* * *

If you have ever entertained it, squelch the ridiculous notion that anyone is too good for a motorcycle.

* * *

Harder than ever to select a machine—so many attractive propositions on the American market.

QUESTIONS & ANSWERS

A Rather Mysterious Case.

I HAVE a twin Indian machine and have been bothered for about six months with a trouble that has puzzled every one. I have traveled over 10,000 miles and never walked or shoved a mile yet, and have not had much trouble in keeping my machine in running order. I have battery ignition and when I advance the spark to a certain place, which is about one-third of the way, the circuit is irregular. Sometimes (as I work it with my fingers) it will miss rather persistently. I have tried everything on earth. I even bought a new coil and took apart and cleaned everything a thousand times, put on new parts, etc. Sometimes I can see a spark jump from the circuit-breaker over to the crank case of the engine to which it is fastened. **H. Fisher.**

Coldwater, Kan.

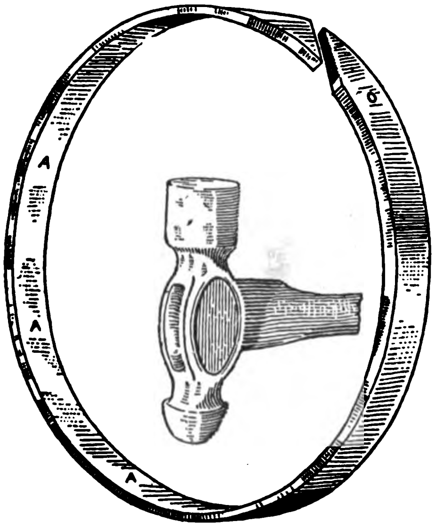
To give a rough guess, after your diagnosis, we would say that there may be a small crack in the insulation of the circuit-breaker. The writer was held up for a long time with similar symptoms and found a tiny crack at that point. Otherwise, there may be a mysterious short-circuit somewhere, but a crack in the insulation would be our bet. We should like to learn if we are correct in this, as the case is very interesting.

Enlarging Piston Rings.

IS there any way by which I could enlarge a piston ring to insure a better fit? **Hoosier.**

Indianapolis.

To make a piston ring larger when it has become worn or loose, first remove the ring from the piston and hold it on some softer substance so as not to jar or jam it. A copper sheet laid on the anvil does very well. Then take a light ball-pene hammer and go along the inside of the ring where it is marked A in the sketch. Be careful not to hit hard enough to bind or jam the ring. Keep going around the ring in this manner until it fits tightly in the cylinder.



The Proper Flash Point of Oils.

WHAT should be the safe flash point? If the temperature in a cylinder is about 350 degrees, would an oil with a flash point of 450 degs. Fahr. be safe to use? **H. L. Saul.**

Providence, R. I.

Yours is a difficult question, as it all depends on the quality of the oil and what the oil people term the "body" of it. Given a perfect oil, a margin of 100 degs. Fahr. would be safe. For instance, in a certain British machine of high compression, we notice that the manufacturers advise the use of water-cooled oil, which rarely has a flash point of much over 450 degs. Fahr. Thus, if one could find an oil of this type with "body" enough to prevent undue leakage and no chance of "burning up," far more economical lubrication would be the result. For high-compression engines such an oil would be fine, as it would mean good-bye to gumming-up difficulties.

Horse-Power Ratings.

I WOULD like to know what bore and stroke are required to develop 4 h. Why is it that one motorcycle firm lists at 4 h. a machine having a bore of 3½ inches and a stroke of 3½ inches, while another lists at 4½ h., a model with a bore of 3¼ inches and a stroke of 3½ inches?

Custer, Okla. **W. D. Armstrong.**

Horse power is not in reality gauged by length of bore and stroke. Cubic inch capacity is the real determining factor, as swept out volume only can be the means of judging. It is true that in old formulas, such as the A. L. A. M., the bore, stroke and number of cylinders are figured. But for handicap purposes such a formula would be utterly useless. One finds many ratings in makers' catalogues which appear strange, but as a general rule these ratings are about correct.

Wants to Rent a Machine.

CAN you inform me if there are any concerns in New York or elsewhere which rent motorcycles as a business proposition? **C. D. S.**

Brazenor & Ruderman, 1041 Bedford avenue, Brooklyn, N. Y., rent machines to responsible parties. F. B. Widmayer, 2312 Broadway, New York, used to do so and will still rent a motorcycle to one who can be depended upon to give it decent treatment. However, very few firms in larger cities solicit this kind of trade. The charges are one dollar for the first hour and fifty cents for each succeeding hour, or $5 a day. We know of no concern willing to rent a machine for a season for much less than a second-hand mount could be bought outright.

An Abuse of the Throttle.

I HAVE a single-cylinder Thor. If while riding along a level road, throttle closed, and spark well advanced, I approach a hill and open throttle suddenly, there is no knock or miss-fire, but for the next two or three explosions the machine will slack speed so suddenly as to almost throw me out of the saddle. Then immediately it will gain again and pull strong. If I open throttle very slowly this does not occur. Can you explain it?

Sioux City, N. D. **R.**

You should *never* open the throttle full all at once. Open it gradually and the mixture will adjust itself, otherwise the correct proportion of gas and air cannot be obtained. No carbureter which is automatic or semi-automatic can respond all at once to full throttle.

A Common Cause of Misfiring.

I HESITATE to intrude, but I would suggest that the question signed by "Stalled," in which he complains of a misfire in one cylinder of his twin machine, should be answered to the effect that the trouble must be caused by an air leakage in the inlet pipe under the dome of one cylinder. A very small leak would cause this trouble. It does not do merely to have the nuts fairly well fastened, but the joints must be absolutely air-tight.

Greensburg, Pa. **Arthur P. Knight.**

Motor Vehicle Laws.

GORDON HAYNES.—The address of the Touring Club of America is 239 West 54th street, New York City. In answer to question No. 2, we refer you to a copy of our paper which we are sending under another cover, and which contains a compendium of the motor vehicle laws of the various States of the Union. Of course, you will appreciate that this was the situation last summer, and in some cases changes have no doubt been made.

Makers of V-Belt Rims.

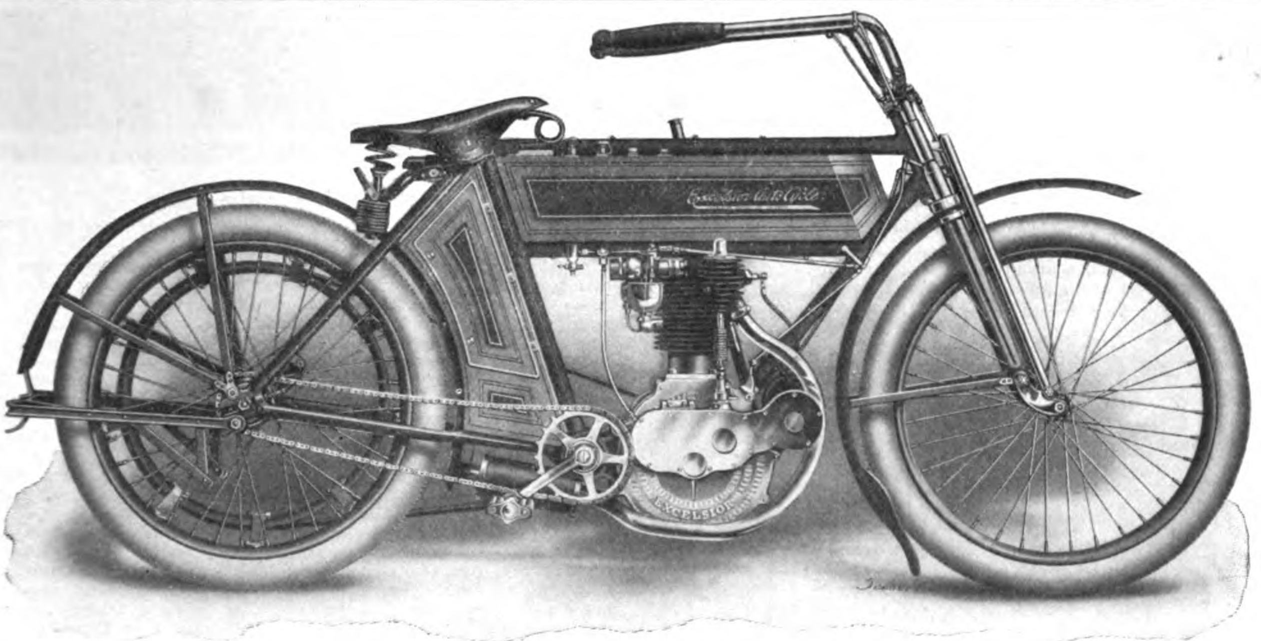
COULD you favor me with the address of one or two firms making 28 degrees V. belt rims?

Everett, Mass. **C. D. Robertson.**

Among such firms are the Standard Welding Company, of Cleveland, O., and the Majestic Manufacturing Co., Worcester, Mass.

BOSCH *NEWS* is the title of a new house organ, the first numbers of which recently reached this office. Typographically, pictorially, and from the standpoint of contents, the *Bosch News*, devoted to the automobile, motorcycle and general gas engine industry, is quite worthy of the great house from which it emanates.

(Questions and Answers continued on page 30.)



"THERE IS ALWAYS ONE

By which the others are measured."

When the City of Chicago called for bids on motorcycles for the Police Department, the specifications required that the machines furnished be fully up to the standard of those then in use in the department.

The machines referred to were Excelsiors and the contract for the new machines was awarded to

EXCELSIOR AUTO-CYCLE

THE ONE THAT ALWAYS MAKES GOOD

Is not this a convincing proof of

EXCELSIOR SUPERIORITY?

Think It Over—Then Get Busy

EXCELSIOR SUPPLY COMPANY
ESTABLISHED 1876
233-237 RANDOLPH ST., CHICAGO, ILL.

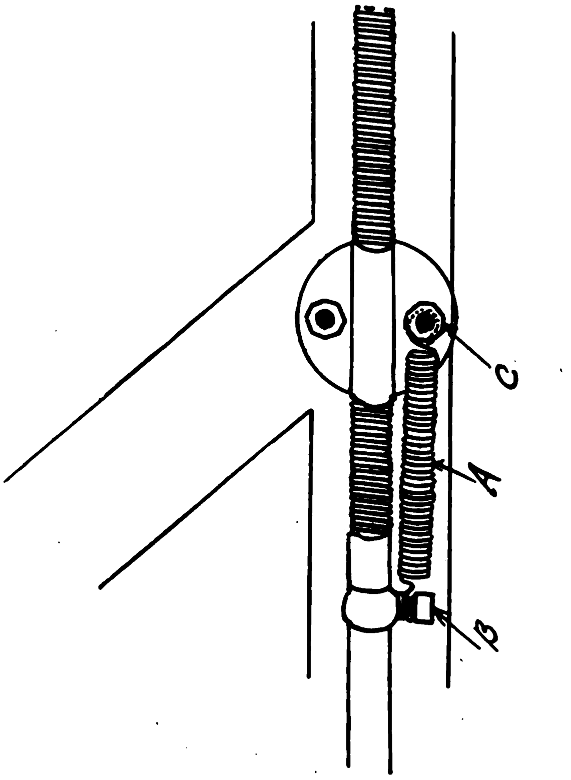
Eastern Representative
STANLEY T. KELLOGG, 2312 Broadway, New York

Pacific Coast Branch
361-363 Golden Gate Ave., San Francisco, Cal.

CORRESPONDENCE

A Bowden Wire Repair Kink.

FOR some time I have been enjoying your paper. I take especial interest in your "Questions and Answers" and "Tips and Topics," and have found some good material in them. I would like to give in exchange a suggestion to riders using piano wire controls. It is a well known fact that if the piano wire breaks you can still push, if it is contained within a spiral spring, as is usually the case, but you can not pull with it. It is usually the spark advance wire that breaks first, so in my drawing I have endeavored to show how an emergency repair can be made by using a spring to work against the pressure on the piano wire, in case it breaks.



The drawing shows how the spring "A" is fastened to the nuts "B" and "C," and how I applied it to my "Thor." But it can be modified to use on other machines and in the absence of the spring, rubber bands will do. I carry a section of spring in my tool kit (it is a short section of the common screen door spring) and on several occasions it has saved me considerable annoyance.

Circleville, O. R. L. BREHMER.

Another View of the A. C. U. Trial.

WITHOUT wishing in any way to detract from the performance of the Indian in the A. C. U. Quarterly Trials, it seems only fair to state that the highest marks were obtained by the 3½ Scott ridden by F. Philipp, viz., 192, compared with 190 scored by the best Indian. Incidentally, twelve machines obtained equal marks with the best Indian scores on the point of reliability—which is the most important point of all. If one considers it from the "team" standpoint, then your claim is correct, but they do not issue the reports in that way in England.

Although I have ridden many English machines I have never yet had the chance to see any of American make. But I am impelled to say that from all reports it appears that the Indian is giving an excellent account of itself in the Old Country. I am sure it will be welcome there, as showing the great advance made by the manufacturers in this country. Yours faithfully,

F. J. BARWELL-WALKER.

Ontonagon, Mich.

Motorcycling in the South.

"WHY are there not more motorcycles through the South?" is a question I was asked the other day, and I'll admit I could not give a decided answer. I might presume, however, and come to a partially correct diagnosis. Quite a few years ago, when the Federation of American Motorcyclists was young, very young, we held an endurance run to Cambridge, Md., and if man ever made good roads anywhere, he certainly forgot that State. Sand up to your neck was putting it mildly; motorcycles wabbled, the riders followed suit, and it became a common sight to see a cloud of dust ahead with a dark form shooting into the under brush. There are cases where we veterans follow the tracks in order to get the best riding surface, but we had to abandon this plan, as for miles and miles tire tracks were never found to run in a straight line for more than fifty feet, at the termination of which a wild zig-zag would eventually prove that Mr. Motorcyclist had gotten too deeply in the sand.

Throughout the South you find it more or less the same way Numerous towns and cities are, however, bettering the surrounding country, but the chances for long inland runs are not very favorable as yet. Nevertheless, the fact that a motorcycle does not need more than a narrow path is to be considered, for no matter where one rides he generally finds a well-beaten footpath. Again, manufacturers are getting down to a basis where every road condition is given consideration, and the result is that motorcycles are not only becoming very reliable, but their construction is such as to place the rider sufficiently low, thus bringing the center of gravity nearer to the ground, consequently affording a machine that will negotiate sand and mud with a feeling of security heretofore unrealized. A. H. B.

Still Another from the Philippines.

ROADS are very bad here as a rule. We have three 1908 2¾-Indians in this province. The provincial engineer uses two for inspection of roads, and I ride one to aid me in covering the province and inspecting the Constabulary companies and stations under my care. As the country is generally impassable, I use my motorcycle on the main road and have a horse waiting to carry me over the rest of my route. In this way I make better time than formerly, when we used horses altogether. The motorcycles are owned by the government and were purchased on account of the difficulty of transportation. We have a disease here called "surra" that decimates the horses and other animals from time to time, so that the more general use of motorcycles and automobiles depends only on the development of our roads.

Bacolod, Negros Occ., P. I. AUSTIN G. BARBER.

A Touring Outfit.

LAST summer I enjoyed a week's vacation touring in Massachusetts and Rhode Island on my 5 h. Indian twin. I enclose a picture showing how I was rigged up for that trip. In the suit case, which was made to fit the luggage carrier, I carried a suit of clothes—which was substituted for my dusty togs when stopping at hotels—one negligee shirt, clean collars, rubber riding coat, extra inner tube, extra short chain and small parts.

Putnam, Conn. WILFRED V. CHAPDELAINE.

Wilfred V. Chapdelaine.

YOU CAN'T OVERLOOK THE M. M.

in making your selection this year. The M. M. is so positively good that it compels attention everywhere. At the Boston Show the M. M. Booth was the center of attraction. There are so many features about the 1910 models that appeal directly to you, the rider, that you can't afford not to "Compare the M. M."

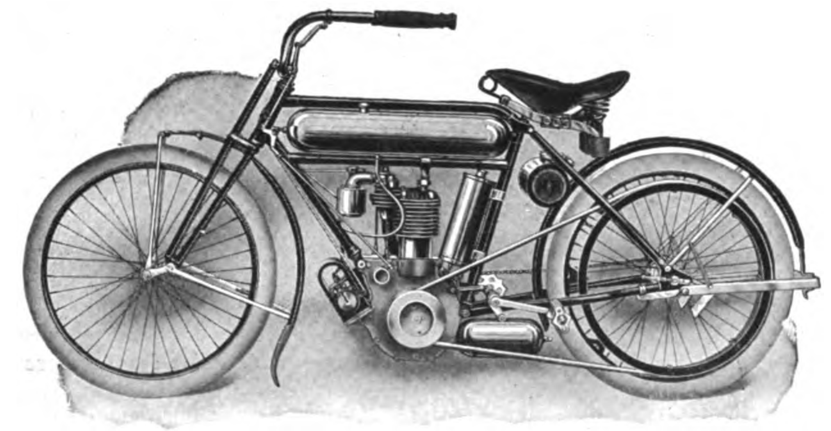
That's what we ask riders to do—"Compare the M. M."—with any other machine no matter where it is made, and if you know motorcycles we'll guarantee you will find more value, more motorcycle dollar for dollar in the M. M. When you buy an M. M. you are getting value received—one hundred cents worth of motorcycle for a dollar every time.

Get the M. M. catalog—visit our nearest branch or agency—"Compare the M. M."—and then look at the prices. We're talking motorcycles first, mind you, quality motorcycles, and prices are secondary. But, you'll find M. M. prices mighty satisfactory.

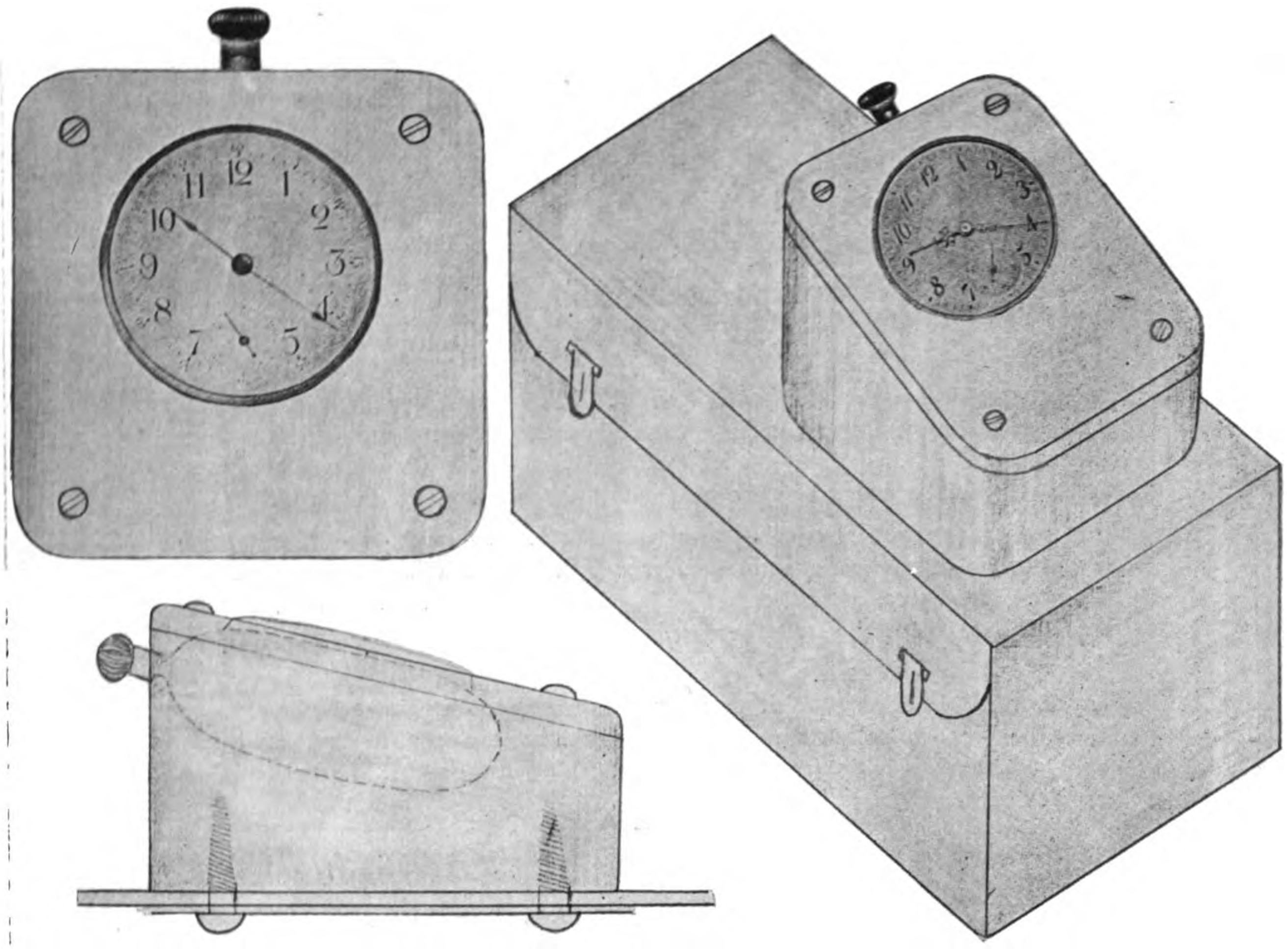
AMERICAN MOTOR CO., 716 Centre St., Brockton, Mass.

Member Motorcycle Manufacturers' Association

Distributors: Boston, 178 Huntington Ave.; New York, 10 W. 60th St.; Buffalo, 895 Main St.; Chicago, 2127 Michigan Ave.; Dallas, Tex., M. M. Building, So. Ervay St.; Los Angeles, 1034 So. Main St.



M. M. 4 h.p. Magneto Single. Roller bearing motor, 1⅞" valves mechanically operated, emergency fuel tank, automatic oiling system, automatic stand, etc. Price $225.



I ENCLOSE sketches showing a very useful invention I have made for my motorcycle. Wishing frequently to know the time while riding, and also how long it took to go between certain places, I found it inconvenient to take my watch out of my pocket, as it was unhandy to get at, so I thought of a way to place a timepiece on the machine. I made a case of wood containing a watch as hereafter described, and fastened it on top of the tool bag. This can be done on machines such as the Reading Standard, Indian, and others which have a tool bag affixed to the top bar of the frame.

I secured a mahogany block and cut it to a size of 2¾ inches wide by 2⅞ inches long. One end of the block was cut to 1 1/16 inches in height, and the other end to 1¾ inches in height, thus making a slanting top. I next purchased a watch for $1.25, having very large figures on the dial. An Ingersoll dollar watch will answer the purpose. In the block a space was bored out into which the watch would just fit, with a small opening at the top for the stem to project through, so it could be wound. I then took a thin board of the same material about ⅛ inch thick for the top, cut this to the same size and shape as the base; and cut a hole in it the exact size of the crystal. I secured this top to the base by a nickel plated screw in each corner. Then I gave it several coats of varnish and it was ready to attach. I got a piece of sheet brass about 1/16 inch thick, cut the same to the size of the base and put it underneath the leather lid of the tool box. Then I fastened the timepiece on top of the lid with four one inch screws from underneath. The brass plate is to keep anyone from jerking it away and the screws from pulling through the leather.

W. L. MISSIMER.
Wilmington, Del.

Four on One Machine.

I PURCHASED an Excelsior last year, and use it on my rural route here. It has given me great satisfaction, as I can do my work in one-half the time. I often give my three children a ride after supper. I inclose a post card picture of myself and three youngsters as we look when starting out for a pleasure ride. My only regret is that there seems to be no place for my wife.

Magnolia, Minn. ARTHUR J. PEMBERTER.

A Voice from Across the Sea.

THE writer would greatly appreciate seeing your correspondence columns made as interesting as those of the two English publications, only more so. You Yankees certainly have entertaining ideas, so why not put them on paper, for by your so doing, motorcycles are sure to be improved much beyond their present state. What about the two-cycle design, for instance? You are rather prone to call the Briton slow, but he has already three good two-cycle motorcycles upon the market. Again, what's the matter with the metric system? The Briton may be slow in your mind, but not one of the splendid motorcycle papers would state that the cylinder has a bore of 3 43/64 and a stroke of 3 5/32, as you frequently do. Finally, we read "Ignition optional with the purchaser." Who on earth wants anything else but magneto ignition? Among the Stanley Show novelties was a 4-cylinder worm drive, both wheels sprung, and the engine started by pulling a lever while the rider is seated in the saddle. Another machine could be started by a sharp kick downward on a crank attached to the rear axle. The low gear and then the high gear are put in by separate foot levers with a free engine between. Yours faithfully,

CHELSEA.
Manchester, Eng.

The Tread of Heavy Gauge—STRENGTH
The Heavy Corrugation—ANTI-SKID
The Perfectly Fitting Bead—SAFETY

COMBINED IN

Diamond

Motorcycle Tires

ARE A POSITIVE ASSURANCE OF

Motorcycle Tire Efficiency

USERS KNOW

Special Motorcycle Tire Catalog upon request

BRANCHES AND AGENCIES IN ALL PRINCIPAL CITIES

The
Diamond Rubber Co.
AKRON, OHIO

Diamond
Motor Cycle

MAKERS AND SELLERS

Three Bosch Branches in Two Years.

THE Detroit branch of the Bosch Magneto Company was opened the first of the month at 870 Woodward avenue, Detroit. This is the third great branch established by this company in less than two years. Only three years ago the first New York office of the Bosch Magneto Company was opened in a small suite of rooms on Broadway in the Arcade Building, and in about a year and a half the company had to make two moves to larger quarters. In 1908 a large building was secured at 223-225 West Forty-sixth street, and this has since been used as the main executive offices and manufacturing plant.

In the three years in which the company has done business the list of manufacturers using Bosch equipment for their cars has grown from about seven, which was the number of contracts the first year, to over 135, just in the motor car field. The motorcycle, marine and gas engine fields have grown as rapidly; and the output of the American plant and offices now is 10,000 magnetos a month—while the world output of Bosch magnetos is 25,000 a month.

The first branch to be established was that at Chicago, which was opened less than two years ago at 1253 Michigan avenue. For a time this office was able to handle the business for the Middle West and the West, but after a year it was found necessary to establish another branch on the Pacific Coast, and accordingly in October, 1909, the San Francisco branch was established at 357 Van Ness avenue. The Detroit branch, just established, is to have charge of a portion of the Middle West territory, where so many of the great automobile and motorcycle factories are located.

How Many Miles Will They Travel?

A RATHER unique motorcycle guessing contest is to be conducted by the Franklin Cycle & Supply Company, of 71 East Gay street, Columbus, O., on the 17th of this month. Three machines will begin a circuit of the State House Square at 8 o'clock in the morning and will continue to be driven without a stop, if possible, until 6 p. m. H. A. Kientz will ride a Thor, J. A. Yates an R.-S., and Melvin Hays an Excelsior. All three are expert riders and prominent members of the Ohio Club. Prizes valued at $50, $25 and $10, respectively, will be awarded to those who estimate most accurately the aggregate number of miles traveled by the three machines. The rider making the highest mileage will be awarded a prize valued at $10.

Jeffery-DeWitt Co. to Move to Detroit.

AFTER the first of May, Detroit, Mich., will be the home of the Jeffery-DeWitt Company, manufacturers of the Reliance spark plugs, whose present address is Newark, N. J. The new plant will be the most up-to-date factory in the world devoted exclusively to the manufacture of plugs. The establishment will comprise not only a complete screw machine department, where all parts entering into the construction of spark plugs will be produced, but also a pottery department for the manufacture of the highest grade porcelains.

An M. M. agency was recently established at Alma, Tex. It is in charge of John Horrell.

CYCLE WORKS
CYCLES—SUPPLIES
171

Weeber Cycle Co., Thor Agency, Albany, N. Y.

Aviation Expert Commends Motorcycle.

EXCELSIOR trade folk and other admirers of that type of machine will read with interest the following extracts from a letter written to W. H. Whitesell, the company's Los Angeles agent, by M. C. Tunison, superintendent of grounds, for the recent big aviation meet:

"This is to thank you for the Excelsior motorcycles that were used by the Aviation Committee and myself to do messenger service during the meet just closed. Their service on cross-country running was wonderful. In fact, the Excelsior was needed to make 'America's First International Aviation Meet' a success. I used up two riding horses before I put the motors to work, and almost daily all of them showed an average of over one hundred miles each.

"Mr. Montgomery with his Excelsior deserves especial notice, for he and his machine were on duty day in and day out, always ready with that get-there-and-back ability. The placing of the Excelsior in the evolution parade as the highest type of bicycle attainment, was due to you because it was earned by consistent and satisfactory performance under extreme conditions of service."

A New Plug.

ALWAYS giving attention to the smallest requirements of the motorcyclist, the N. S. U. Company has brought out still another new accessory known as the easy starting spark plug. The ignition arc emits sparks from three points to a platinum wound steel wire. The distances can be varied for weak and strong currents, and should any one point foul, there are still two other points to keep the motor running. The metal parts of the plug are specially hardened and the insulation is very tough and of close grain mica. The plug is unlike anything else on the market. The price is set at $1.50, with good discounts to dealers and jobbers.

Huyck Tries Out New 4 h. Indian.

THE new model 4 h. Indian which arrived at the Chicago branch on Friday is proving very satisfactory. It has all ranges of speed from very slow, in fact so slow that the rider has difficulty in balancing the machine, up to a speed of 55 miles an hour. The model is equipped with free engine and two-speed gear, which absolutely does away with pedaling. The motor can be cranked the same as an automobile motor and a start made from stand-still without stopping the engine.

Fred Huyck, the world's amateur champion, has tried out the new model and is delighted with it. A number of orders have already been booked by the Chicago branch at 1251 Michigan avenue for this type of machine, due largely to the demonstrations given last week.

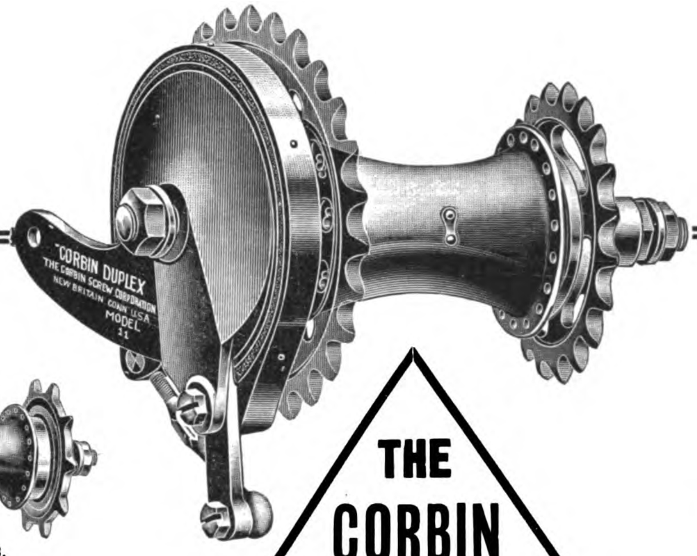
For Galveston Firm's Traveling Men.

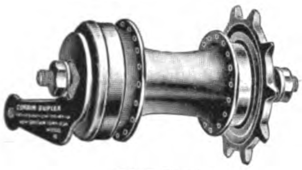
GALVESTON, Tex.—To keep abreast with the times Messrs. Pabst Bros., local commission merchants, on the first of March inaugurated a motorcycle schedule for their traveling representatives on the mainland. Mr. Albert G. Pabst, in speaking of the change, said that at the present time all of the Northern cities and some of the Southern towns are using this mode of conveyance for representatives who have to make nearby points, and that so far as he has been able to ascertain each experiment has been successful.

Another Supply House in Chicago.

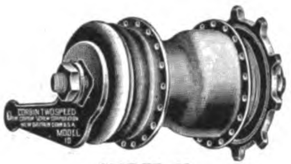
A. J. MUSSELMAN, who is head of the American Motorcycle Company, of Chicago, and D. W. Gould, manager of the Dayton Sewing Machine Company's bicycle department, together with C. H. Wells, are the incorporators of the M & G Manufacturing Company of Chicago, organized with a capital of $2,500 to manufacture and deal in bicycle, motorcycle and automobile supplies.

"KNOBBE" has opened a new store at 150 Main street, New Rochelle, N. Y. In addition to a complement of automobile supplies, this firm, of which George Banks is sales manager, handles the M. M. and carries a full line of motorcycle parts. It does not do any repairing, however.





MODEL 8.



MODEL 10.

THE
CORBIN
BAND BRAKE

NOT AN EXPERIMENT BUT A PROVEN SUCCESS, THE

CORBIN

BAND BRAKE

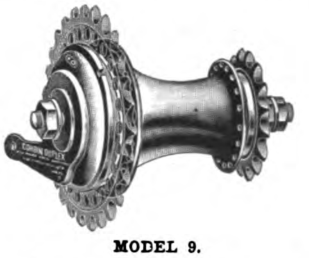
For Belt or Chain Drive Motorcycles is Superior to All Others in

Principle, Strength and Reliability

C-O-R-B-I-N Spells Both Quality and Workmanship

WAREHOUSES.

106, 108, 110 Lafayette Street, New York; Northwest Corner Eighth and Arch Streets, Philadelphia, Pa.



MODEL 9.

AGENTS AND RIDERS

Handle and Use a Brake Whose Success Has Been Demonstrated by Thousands. Quotations on Request.

THE CORBIN SCREW CORPORATION

LICENSED COASTER BRAKE MANUFACTURERS

THE CORBIN SCREW CORPORATION OF CHICAGO, 107-109 Lake Street, Chicago, Ill.

NEW BRITAIN, CONN., U.S.A.

Whipple as Active as Ever.

WHIPPLE, the Motorcycle Man, of Chicago, has just issued his Bulletin No. 4. Incidentally, Whipple keeps the trade guessing as to what startling experiment he will next try. His latest was a "show me show," in which the Greyhound, for which he is distributor in Illinois, Indiana and Wisconsin, was featured. Whipple is one of the original old guard of MOTORCYCLE ILLUSTRATED advertisers, having been represented in its columns ever since the first issue of the paper was published. He attributes much of his success to the influence of this publication. Riders in Chicago and vicinity may be interested in knowing that Whipple, whose place of business is at 260 West Jackson Boulevard, is our subscription agent in that city and authorized to receive subscriptions for us.

Jersey Motor Show.

FOUR makes of machines were exhibited at the recent Newark Motor Show. Carl G. Bush had the Excelsior, Frank Corrish the Yale, Watson Kluczek the Harley-Davidson, and the H. J. Koehler Company the Indian. Each one of these dealers reported at the close of the show that the business done was such as to indicate a big boom in the trade and the sport in Newark and, in fact, throughout all of northern Jersey.

A Big Joint Meeting Probable.

IT is more than probable that the Motorcycle Manufacturers' Association will hold one of its summer sessions at Atlantic City, probably during the joint meeting of the Cycle Parts and Accessories Association and the National Association of Bicycle Jobbers, which takes place on Aug. 3, 4 and 5.

FOUR Harley-Davidsons have just been supplied through the company's Cleveland representative, the Lister Bicycle Company, to the Cleveland Telephone Company. These machines will be put to commercial use, and the Harley-Davidson was chosen because of its strength and ability to stand hard service.

S. D. Agency in Baltimore.

BALTIMORE.—F. W. Sandruck has obtained the S. D. agency for this city and its vicinity. He has the distinction of being the first representative of the makers of the S. D., a single cylinder shaft driven machine recently placed on the market.

SCHETTLER & SWEETEN, of Salt Lake City, are now representing the Harley-Davidson folks in the State of Utah.

Ovington to Import the F. N.

EARLE L. OVINGTON has just organized the American F. N. Company for the purpose of representing F. N. interests in this country. Mr. Ovington is president and H. H. Wilcox treasurer. Temporary headquarters have been established at 63 Page Road, Newtonville, a suburb of Boston. During Mr. Ovington's recent trip to Europe he arranged matters with the F. N. Company in Belgium. The newly established concern is prepared to fill all orders for F. N. parts and expects to be able to deliver both the single shaft-driven light weight and the four-cylinder about the first of May.

Keene's Second Show.

KEENE'S Second Annual Auto Show, held under the auspices of the Consolidated Motorcyclists, of Keene, N. H., proved quite representative of trade conditions in northern New England. There were nine cars on exhibition, a goodly selection of accessories, and models of the Indian, Excelsior, Merkel-Light and Yale. The former two were shown by G. F. Little, of Keene, while the Pottstown product was exhibited by the W. F. Mann Motor Company, of Boston. The Overland Company, also of Keene, showed the Yale.

Organizing a New Tire Concern.

THE Kelly-Toledo Tire and Rubber Company is in process of incorporation in Toledo, Ohio. This concern is being organized by Chas. F. U. Kelly, formerly president of the Lockport Rubber Company, whose factory was destroyed by fire last fall. Practically all the capitalization of $375,000 has been provided and the company will soon start business. It will manufacture, among other things, both bicycle and motorcycle tires.

Harding Succeeds Stephens.

W. B. HARDING, former purchasing agent of the G & J Tire Company, has succeeded G. W. Stephens, who recently resigned, as advertising manager. Mr. Stephens is arranging to go into the tire and accessory business on his own account. He will locate in Chicago.

FRANK ARNOLD, of Springfield, Mass., formerly employed by Geo. A. Luckey and at the Hendee plant, and a member of the City of Homes Club, will manage the motorcycle repair business for H. R. Olmstead & Sons, of Syracuse, N. Y., during the 1910 season.

THE J. C. Harding Company, of Topeka, Kan., which recently added motorcycles to its other lines, has removed from 833 Kansas avenue to 106 E. Sixth avenue, where much more room will be available for its increasing business.

H. H. LYON has purchased from G. M. Ashley the latter's interest in the firm of McLaughlin & Ashley, of this city. Notwithstanding the retirement of Mr. Ashley there will be no change in the firm's name.

A THOR agency has been secured by W. H. McClure, of Kingman, Kan., who has just engaged in the motorcycle business. His first order was for no less than twenty machines.

SACRAMENTO is soon to put its policemen in the residence section of the city on motorcycles. This innovation is to be made at the suggestion of Chief of Police Ahern.

Thor
MOTORCYCLES

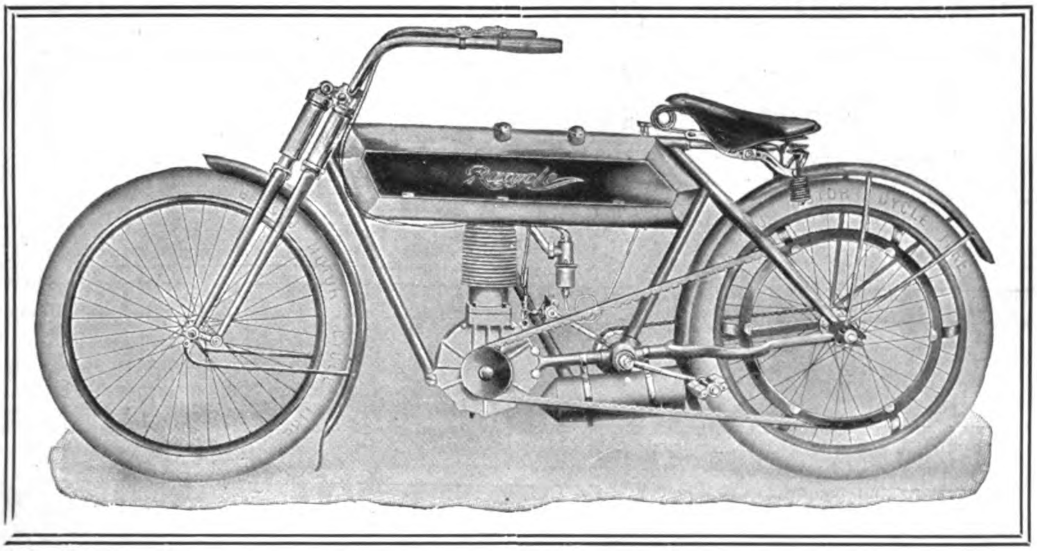
O. J. Oberwegner, Manager Retail Department, Aurora Automatic Machinery Company.

THE RACYCLE

Four Horse-Power Engine.

Improved Musselman Coaster Brake

IS distinguished by its handsome frame design, clear-cut lines, comfortable riding position, a large four horse-power single cylinder engine, the Musselman coaster brake, imported carbureter, a combination tank, forks of the barrel and plunger type, a positively silent muffler and numerous other features certain to enhance the riders' enjoyment of the sport.



THE 1910 RACYCLE MOTORCYCLE

Embodies the **Best** and **Latest** Ideas in Motorcycle Construction in this Country and Europe, and We Can Prove it. There is beauty, simplicity and strength in this machine, with a frame having only 20 brazed joints and constructed of 1¼-inch 16-gauge tubing. The engine, firmly suspended at three points, has a bore of 3¼, and a stroke of 3⅝ inches and presents a large cooling surface, all the more efficient because the flanges are finely cast. The motor is of the roller-bearing high-speed type and has a piston displacement of 30.50 cubic inches. Ignition is by means of batteries.

Write for Full Particulars and Agency Proposition. **Closing Agencies Everywhere Every Day.**

Imported English Carbureter

Flat or V Belt Transmission

THE MIAMI CYCLE & MFG. CO.
MIDDLETOWN, OHIO
Members M. M. A.

2123
CYCLE REPAIRING
INDIAN
EXCELSIOR
MOTOR CYCLES
EXCELSIOR

A MODEL PHILADELPHIA SHOP.
Store of Charles Krauss on N. Broad Street.

Motorcycles Used to "Shoo" Swans.

THE Minneapolis Park Board uses motorcycles to police the public parks, parkways and boulevards of the city. Four of the machines are in service during the summer months and are used by four park policemen during the day and a new shift of the same number at night. They have proved efficient, says Theodore Wirth, superintendent of parks, in the hourly patroling of the parkways to prevent heavy wagons from driving thereon. One of the park motor coppers has even used his machine to "shoo" the swans at Lake of the Isles, from the boulevard back into the water.

In Praise of Kokomo Tires.

NO comment is necessary regarding the following letter just received by the Kokomo Rubber Company, Kokomo, Ind.:

"I have an Excelsior Auto-Cycle, equipped with Kokomo tires, which I have been riding for over six months, and up to now I haven't had a single puncture. My tires are in fine shape, and look as though they haven't been used more than a month. Kokomo tires will always suit me.

"Very respectfully,

"Troy, Ala. "EMORY FOLMAR."

Motorcycle Garage in Worcester.

MOTORCYCLISTS will find Worcester up to date this season. A motorcycle garage, the first ever in Worcester, is being equipped by the New England Motor & Supply Co., 24 Austin street. The garage will be in a brick building near Austin street and Houchin avenue, and will have an entrance from each street. Charles H. Adams is manager of the new company.

A BRANCH house has been established in Kansas City, Mo., by the Empire Tire Company, of Trenton, N. J., manufacturers of Empire tires, inner tubes, patches, and other rubber specialties. The branch is located at 1516 Grand avenue and has been placed in charge of Claude Beardsley, who has hitherto represented the company as a traveling salesman.

OMAHA, Neb., has a new motor and cycle repair concern operated by J. F. Twentyman and C. De Remer, who have located at 11 Orchard street.

INCREASING COMPRESSION.

IS it true, generally speaking, that an engine can be made to give much more power by increasing its compression? Is the experiment worth trying? L. D.

New York.

It is very often assumed that any engine can be made to give more power by increasing the compression, and there are a number of riders, apparently, who, once they find their engines are not pulling so well as formerly, are seized with the desire to have an iron plate screwed on top of the piston, and thus raise the degree of compression considerably above its normal. This, in the majority of cases, is a decided mistake. We could, if necessary, quote the results of authoritative tests which prove that the gain in power output obtained by radically increasing compression is very small, and, moreover, it is attended with such risks of pre-ignition of the charge that it is not worth adopting, unless in special instances, such as racing machines. Many manufacturers favor a moderate compression, as it is found that keeping within this range tends to smoother running, especially at a low rate of revolutions, and the flexibility is increased. We do not say that some engines cannot be improved by screwing a compression plate on the piston, but such engines are almost invariably of very low compression. No modern engine should require any addition, and it is certainly undesirable to risk spoiling a good engine. All that is required in the majority of instances is to see that the compression is as good as can be obtained by careful attention to valves, plug seatings, and other places where leakage may occur. The piston rings need not be examined till all other possible causes of loss of compression have been eliminated. Even should it prove to be the case that the loss of compression is at the piston rings, in many cases it will be found that removal from the piston grooves and a thorough cleansing of rings and grooves with paraffin, so that the piston rings work quite free, will restore it. New rings and truing up of the cylinders are not so often required as is assumed.

Another Harley-Davidson Expansion.

A DEAL has just been consummated by the Harley-Davidson Motor Company, whereby that concern has acquired a piece of property west of its factory. The plot is 218 feet long but, owing to a railroad siding, irregular in shape. However, it will give the Harley-Davidson folks 11,400 square feet of additional land, upon which they will soon begin the construction of a new building. While the plans for the proposed structure are being worked out, they will put up a one-story building to help take care of the spring trade. In the course of three or four weeks they will put 100 more men to work in these temporary quarters

---

HAMMER & BISSETT, of Minneapolis, who have closed with the Hendee people to handle the Indian for the fourth consecutive season, have also secured the Emblem agency for that city.

Indianapolis Branch for Empire Tires.

THIS is the new Indianapolis branch, at 208 North Delaware street, of the Empire Tire Company, of Trenton, N. J. This is the first direct tire branch house opened in Indianapolis and it will be managed by Charles Weiland, who for a number of years represented the Empire's Chicago branch in the capacity of salesman.

SEEDS
208
Empire Tires
EMPIRE TIRE CO

The Superiority

of

G&J TIRES

has been so frequently demonstrated that it has now become an axiom with all riders of national reputation. They won't take chances on anything else. The further fact that

all the leading motorcycle manufacturers of the country specify G & J Tires

as their standard equipment will convince you that the Indianapolis G & J Motorcycle Tire is the

unquestioned leader in the world of motorcycling.

You cannot get anything better.

Send for our illustrated booklet.

G & J TIRE COMPANY, Indianapolis, Ind.

MOTORCYCLE MART: IT SELLS THE STUFF.

FOR SALE OR EXCHANGE

FOR SALE—Crouch loop frame 3 h. p. engine, good as new. Tires in good shape. Bargain at $100.00. Ernest A. Dakin, Wilton, Maine.

FOR SALE—A dandy. M. M. 7 h. p. twin, double grip control, spring fork, large Mesinger saddle, speedometer, large headlight and generator, rear light, horn, pump, luggage carrier, large tool box, extra inlet valve and plug. First check for $175 takes it. A Bourgeois, No. 4 Coombs street, Middleboro, Mass.

FOR SALE—1908 Indian Twin, fitted with $50 B. & C. two-speed device, two new cylinders and pistons; enamel, tires and whole machine in fine order; reason for selling, have position and cannot use it. Will sell for $150; cost $325. A. Cohen, 1627 Eleventh avenue, Altoona, Pa.

FOR SALE—1909 Twin Indian just overhauled by Hendee Mfg. Co.; extensively equipped; no further use, have auto. M. A. Cordner, 68 Fairview avenue, Jersey City, N. J.

FOR SALE—1908 Indian Twin, not run 2,500 miles; 1909 G & J tires, not run 800 miles; machine in good condition, $120.00. Address Y., care of MOTORCYCLE ILLUSTRATED, 299 Broadway, New York.

FOR SALE—Twin cylinder, 5 h. p., 1909 model, loop frame Indian; used three months; in excellent condition. Extras: B. & C. two speed and free engine transmission, Prest-O-Lite gas tank with 20th Century lamp. Price $225.00. Frank Runyan, Jewell, Kans.

FOR SALE—Having just won automobile in a contest, will sacrifice Pierce 4-cylinder machine, run less than 500 miles; shaft drive, Bosch magneto, Bailey tread tires; fine running condition. Starts on one-quarter pedal. Not a mark on it. $225 to quick buyer. Box 234, Troy, Pa.

FOR SALE—1909 M.-M., magneto twin, like new. Henry Muller, 1141 Park place, Brooklyn, N. Y.

FOR SALE—1910 Puch 7 h. p.; practically new; run only 300 miles; equipped with stand, 80-mile speedometer, horn, and two extra pulleys and belts. Cost $400.00; $300.00 takes it. Ill health reason for selling. Address J. Pennington, P. O. Box 135, Summerville, S. C.

FOR SALE—1907 M. M., $65.00; 1907 M. M., $75.00; 1907 Armac, $75.00 Motorcycles taken in exchange for the new M. M. 4. Box No. 3, Readville, Mass.

FOR SALE—1909 7 h. p. V-belt Twin M. M.; Bosch magneto; extras; fine running order; tires like new; $150. Charles Krebs, 51 William street, Newark, N. J.

FOR SALE—One single 1907, one twin 1908, "CURTISS" motorcycles, in good running order. Best offer takes them. C. W. Henderson, Box 305, Flemingsburg, Ky.

FOR SALE.—1909 Merkel, ball bearing engine, 3½ h. p., spring frame; run about 1,000 miles; A1 condition; guaranteed; $95. Need money badly. H. H. Olmsted, Ames, Iowa.

FOR SALE—1908 Indian 5 h. p. twin; new rear tandem tire; treated well, used little; $150.00. Henry Tholen & Son, Victoria, Kan.

FOR SALE—Motorcycle, 3½ h. p.; must sell at a bargain; write for particulars. John Horrell, Alma, Texas.

FOR SALE—'09 3½ h. p. Magneto M. M., nearly new; must sell; bargain; write quickly. W. A. Baldwin, Box 531, Thomaston, Conn.

FOR SALE.—1908 Indian twin, fitted with '10 handlebars; low saddle position; $150 takes it. Sven Hokanson, Middleboro, Mass.

FOR SALE.—Pierce Vibrationless four-cylinder motorcycle, 1909 model, used only short time as demonstrator. For quick sale will sacrifice. Need room for 1910 models. Address "Pierce Agent," care MOTORCYCLE ILLUSTRATED.

FOR SALE.—1910 Indian, brand new, at attractive discount Write me immediately. P. S. McLean, 23d St. Y. M. C. A., New York City.

GRIFFON MOTORCYCLES and parts, 2¾ h., $150; 3½ h., $200; 5 h., $250. Call or write for appointment to see same. G. V. Cochrane, 2 W. 125th street, New York City.

FOR SALE—1909 Thiem motorcycle, completely overhauled by manufacturers, with cyclometer, lamp, stand, luggage carrier, and spring fork; fine condition; $125.00; already crated. J. L. Lenihan, Lakeville, Minn.

FOR SALE—2¼ h. p. attachment, new; price $25. Leon Dakin, Notch, Me.

FOR SALE—1909 3¼ h. p. Thor motorcycle, Bosch magneto, perfect condition; cost $250; sell $190. Address Fred Kolloff, 103 Fulton street, Auburn, N. Y.

FOR SALE—1909½ Indian chain drive twin 5 h. p. magneto ignition; horn, lamp, luggage carrier, including full equipment. Machine in excellent condition; ridden less than 800 miles; tires and enamel in excellent shape; reason for selling, employed in night work. A bargain at $200; transportation charges paid. Lawrence Clark, St. Edward, Neb.

FOR SALE—Twin cylinder Indian, 1908, excellent condition, new chains, cams, valve springs; full supply tools, accessories, spare parts, extra shoe, leather coat. Cost $310.00; sell $125.00 cash. Demonstration, or write. L. F., 2230 Broadway, New York City.

FOR SALE—1909 twin cylinder Indian, 5. h. p.; all in fine shape. Cost $275.00; $200.00 will buy. Address L. A. Groves, Davison, Mich.

OUT OF WORK, will sacrifice nearly new $300 R.-S. magneto twin, perfect condition; $165. Will Megill, 42 Sussex avenue, Newark, N. J.

STOLEN: REWARDS OFFERED

REWARD $25 EACH—Stolen Oct. 26, two 1909 loop frame twin Indians. Red, 21A454. Green, 20A642. Pioneer Printing Co., 307 Howard street, Spokane, Wash.

$25.00 REWARD—Stolen, THOR single cylinder, Engine No. C. 7509; Frame No. 9, 1891 gray, V bars. Smith Machine Co., El Paso, Tex.

REWARD—$25.00; Indian motorcycle stolen; green loop frame; 1909 model twin 5 h. p.; magneto chain drive motor No. 20A642. Norman Niebergall, 660 Wall street, Los Angeles, Cal.

MISCELLANEOUS

WANTED—Capital to manufacture up-to-date motorcycle and aeroplane engines; by a mechanic who has made a thorough study of the foreign practice in light engine construction, and who has had unlimited experience in motorcycle and automobile manufacture. For particulars address "Capital," care MOTORCYCLE ILLUSTRATED.

WANTED—Light-weight motorcycle, F. N. or N. S. U. A. Warfel, Cadiz, Ohio.

WANTED—Tandem attachment for motorcycle. Supancig, 257 West 125th street, New York City.

AGENTS CARDS, ETC.

FOR SALE—2½ h. p. '09 Erie attachment for bicycle complete. Aluminum base motor, sight feed oiler, combination tank, best V belt, large efficient muffler, coil, etc.; all O. K. In fact, this outfit is as good as new. Full directions. First check for $35 takes it. Dr. D. E. Lewis, Bennington, Vt.; agent for M. M. motorcycles.

WANTED—Motorcyclists to know that we carry a full line of spare parts for "CURTISS," "ROYAL PIONEER," "R.-S.," and "INDIAN" Motorcycles; as well as the best variety of highest accessories manufactured. Reliable repairing done on the premises. Tiger Cycle Works Co., 782 Eighth Avenue, New York. 'Phone, 1268 Bryant.

MOTORCYCLES thoroughly overhauled and repaired; agents for Thor and Excelsior motorcycles; supplies and sundries. Brazenor & Ruderman, 1041 Bedford avenue, Brooklyn, N. Y.

FOR SALE—Fifteen new and second-hand motorcycles, run from 50 to 1,500 miles; four different makes. Write me. N. H. Bedard, Stockton, Kansas.

SECOND-HAND M. M. BARGAINS—Exhaust Whistles, Hand Idlers. M. M. Branch, 895 Main street, Buffalo, N. Y.

FOR SALE—1907-08-09 R-S, Greyhound and Curtiss singles. Need money to buy 1910 stock machines. Correspondence solicited. James Finkle, Dalton, Mass.

IF IT IS a second-hand machine you want, write to A. D. Cook, 111 Monroe avenue, Rochester, N. Y.; Curtiss Agency.

BARGAINS in accessories. Always on top. We have the largest stock and lowest prices in America. Write today for catalogue. Motorcycle Equipment Co., Hammondsport, N. Y.

FOR SALE—Three 1909 M. M. Magneto specials, $100, $125, $150. Kobbe, 150 Main street, New Rochelle, N. Y.

EXCELSIOR MOTORCYCLE RIDERS—Equip your machines with 1910 Valve Silencer. Postpaid, with full instructions, fifty cents. Automatic Machine Company, 50 N. Penn street, Indianapolis, Ind.

WANTED.—A Live Agent for Tourist Two-Speed Motorcycle,

and K. & R. two-speed gear. No pedals; starts with a crank. Can be applied to any BELT-DRIVEN motorcycle. For information address Post Motor Agency, New Canaan, Conn.

Reliance

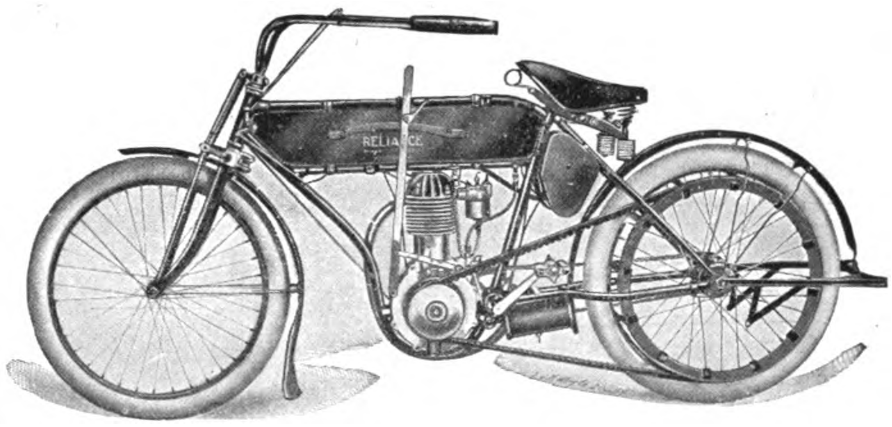
Seventh Successful Season
of the
Reliable Reliance

THE ONE NEW THING IN MOTORCYCLES AT THE CHICAGO SHOW

A COUPLE OF FEATURES:

Truss SPRING Fork, the most flexible and enduring made.

Two-Speed and Free Engine Transmission Gear, the FIRST practical, compact arrangement made. Largest Clutch, Largest Gears and Largest Wearing Surfaces. One lever control.



With this transmission the rider can start from standstill on the steepest hill. An absolute necessity for the construction of the perfect motorcycle. Full details in our catalogue, let us send you one.

RELIANCE MOTORCYCLE CO.

OWEGO, N. Y.

Member Motorcycle Manufacturers' Association

EUROPEAN TOUR HINTS.

THE writer intends to make a trip in Europe on a motorcycle, going from Naples northward to Hamburg, perhaps also to Greece. I am informed that if a rider is a member of a certain club in Europe, he has no difficulty in passing through the lines of custom house offices, except that he makes a deposit which is thereafter returned. OTTO W. JURGENS.
Chicago.

If you are a member of the Touring Club of France or of the Autocycle Union of England, you can obtain low deposits on entry to any country. Write to The Autocycle Union, care *The Motorcycle,* Messrs. Iliffe Sons, Ltd., Ludgate Hill, London, E. C., England, and to the Touring Club of France, Paris. These two bodies control most continental touring ground. The writer has been over part of the route and reports the roads bad north from Naples, unless Turin is taken in, where they are good. The Rhone valley route is excellent except that the passes must be dodged at nightfall, best at 1 a. m., as some bar motor traffic, but it is good, exciting fun at that.

Wheel Base—Wheels—Two Speed Gears.

CHAS W. TAYLOR, Philadelphia.—(1) A long wheel base is far more comfortable to ride, and coupled with a low engine position makes for greater freedom from sideslip. (2) 28-in. wheels are easier to ride, but they are not so strong as 26-in. (3) Your dealer is a "knocker." Given a properly designed motorcycle made with a two-speed gear, provided you do not unduly "race" the engine, the combination is a luxury to tour with, especially in very hilly country or with a side car. (4) A two-speed gear is unnecessary in a flat country when the motorcycle is not used for touring or for passenger work. One can throttle a machine down to six or eight miles an hour with a single speed, but one could not climb a bad hill in the mud at this speed, whereas the two-speed will allow an engine to run at more normal speed and yet go slowly uphill. A two-speed gear is a slight added complication, but on a first-class machine with a two-speed gear that has been on the market four seasons or so, one can expect the combination to be reasonably "foolproof" if you follow directions.

Two Versus Four Cycle.

IN your next issue please explain to me what two-cycle and four cycle means. A FUTURE RIDER.
Mt. Hope, Kan.

A two-cycle engine differs from the four-cycle type in that it receives twice as many engine impulses to a revolution of the fly-wheel. In the four-cycle the operations are as follows: (1) induction stroke, (2) compression stroke, (3) firing stroke, (4) exhaust stroke. In the two-cycle, in some forms, the operation is such that with the induction stroke on one side of the piston a charge in the crank-case is also compressed and fired, and this firing-stroke compresses the other charge in the cylinder head. In some cases both charges are compressed in the cylinder head; in fact, this is the latest design in two-cycle engines. In this type the piston is shaped with a peculiar ridge to assist in the "scavenging" of the exhaust. No valves are used in two-cycle engines except the occasional fitting of a compression relief valve in the cylinder-head to facilitate starting. The ports which are used instead of valves are uncovered at certain periods in the piston stroke. The two-cycle may be the motorcycle engine of the future, as it gives two engine impulses as against one of the four-cycle type, and is also less complicated. The disadvantage of present types for other than low-speed marine engines is the imperfect scavenging of the exhaust gases, thus making the firing charge somewhat impure.

Road Maps and License Fees.

IS there anything on the market in the way of a reliable road map or guide book, of recent date, that clearly shows and describes the good roads in New York, New Jersey, Long Island, Connecticut, etc.? (2) How is the gear ratio on a chain machine, using ⅝-in. pitch, computed? (3) Is it necessary to have a license to ride even a short distance in New Jersey or elsewhere And if so, is that license honored in any other State? Where can the license be procured and what is the cost? J. WISSLER.
New York.

(1) You can obtain what you require in the way of a really first-class road-map from the Automobile Club of America. All roads are closely marked and surface conditions and gradients indicated. Great credit is due to the club, as the whole ground has been covered, surveys taken and drawn up by a skilled French map maker. (2) It does not matter what the pitch of the chain is; the rear sprocket teeth are simply divided by the front sprocket. (3) Each State has different license rules which, sad to relate, are altered every year or so. New Jersey carries a few days' free entry, we believe. Licenses are purchasable from the State Highway Department or from the Commissioner of Motor Vehicles at the capitol of each State. The Jersey fee is $2.

HERZ MAGNETO

HERZ MAGNETO
HERZ & CO.
NEW YORK

Made in Germany.

On YOUR Motorcycle means a FAT, HOT ARC FLAME at the first ¼ turn of your pedal and ever after. It's the strongest, most efficient, lightest and most compact Magneto made.

Over 15,000 on American 1910 Motorcycles.

EQUIPMENT ON: EXCELSIOR, PIERCE, THOR, YALE, HARLEY-DAVIDSON, GREYHOUND, EMBLEM, WAGNER

Thousands of Testimonials.

HERZ means absolute dependability.

Mr. E. W. Rietz says: "It's the best Magneto made. My machine will run just as slow as a battery machine and is a lot more reliable."

THE HERZ-PLUG

No Cleaning

No Taking Out of Motor

Proof Against Oil

Proof Against Soot

"Bougie Mercedes"
The Famous STONE PLUG

Absolutely Self-Cleaning

A Great Saving To You

HERZ & CO.
NEW YORK

The Greatest Value in Spark Plugs Ever Offered.
Absolutely Guaranteed One Year.
PRICE, POSTPAID, $1.50

HERZ & CO., 295 Lafayette St.
NEW YORK
(CIVIL ENGINEERS.) WRITE FOR NEW CATALOG.

NEW NEW DEPARTURE

Internal Expanding Band Coaster Brake for Motorcycles is

Band Brake and Lever

POWERFUL
PRACTICAL
POSITIVE

Band Brake showing top plates holding parts in position—transparent view

The New Departure is the last word is coaster brakes for 1910 motorcycles. Radical improvements have been made, bringing it abreast of motorcycle advancement. It is dependable under all circumstances, strong enough to stall the highest powered motors; cannot bind, lock, "feed up" the pedals or cut into the hub. Every test proves claims made for it and every user declares its unfailing efficiency.

When asking your dealer about the "NEW" New Departure, do not fail to tell him you want to see the internal expanding band coaster brake.

Write for Folder

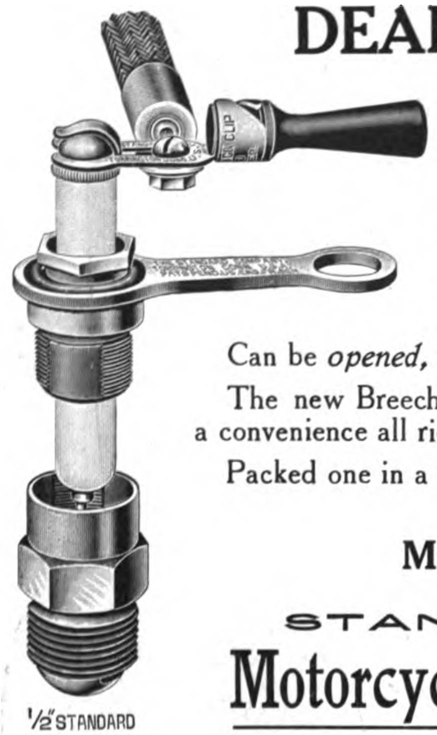
THE NEW DEPARTURE MFG. CO.

Coast Brake Licensors BRISTOL, CONN.

STANDARD-EQUIPMENT

FOR THE

MOTORCYCLE MANUFACTURER, DEALER AND RIDER



The Breech Block Plug

A COMBINATION

SPARKER PRIMER COMPRESSION RELIEF

One sixth turn *opens* or *closes.* The push of a *finger* locks tight to 2,000 pounds.

Can be *opened, cleaned* and *closed* in *four seconds.*

The new Breech Block Clip with Insulated Handle prevents shocks and is a convenience all riders will appreciate.

Packed one in a box with new clip-screw-nut and directions.

PRICE

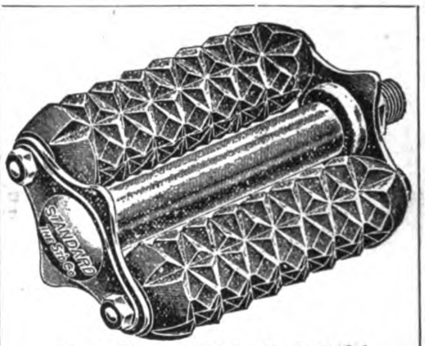
Mica, $1.25 Porcelain, $1.00

We recommend mica plug for motorcycle use

STANDARD Motorcycle Pedals

Wide Tread Pedals combining *Comfort, Utility* and *Reliability.* Constructed of the *Best* materials by *Skilled Mechanics.*

PRICE, $3.00 PAIR



No. 3, Standard Motor Cycle Pedal

Emergency Axles, Sager Motorcycle Toe Clip, Diamond E <E> Spokes. Bridgeport, and Standard Pedals. Sager and Standard Toe Clips.

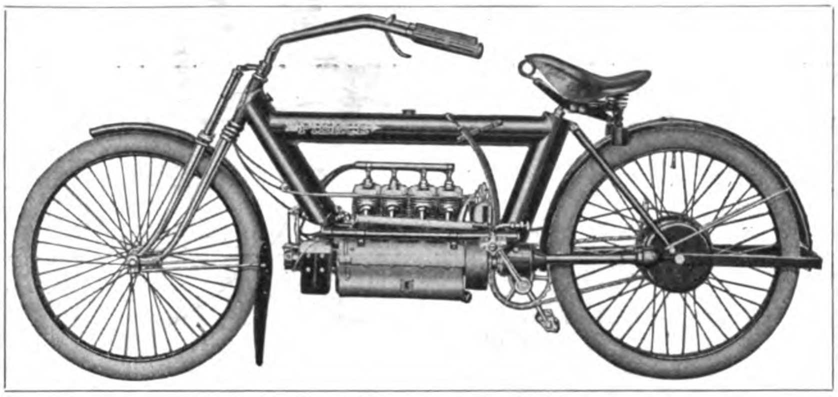
Send for our Descriptive Circulars

THE STANDARD COMPANY

Torrington, Conn., U. S. A.

PIERCE

The Absence of Vibration
makes it pleasurable to ride
The Pierce Four Cylinder Motorcycle



Besides this Vibrationless element, the Pierce Four is replete with numerous superior features, such as:

Four Cylinder Engine **Shaft Drive (enclosed)** **Two-speed Transmission**
Free Engine Clutch **Force Feed Automatic Oiling System**
Magneto Ignition **Large Tubing; no Tanks**

THE PIERCE SINGLE CYLINDER
motorcycle is like the Four in smooth and easy running qualities. This model represents the most advanced ideas in Single Cylinder Motorcycle design and construction.

Ask for Catalog "G."

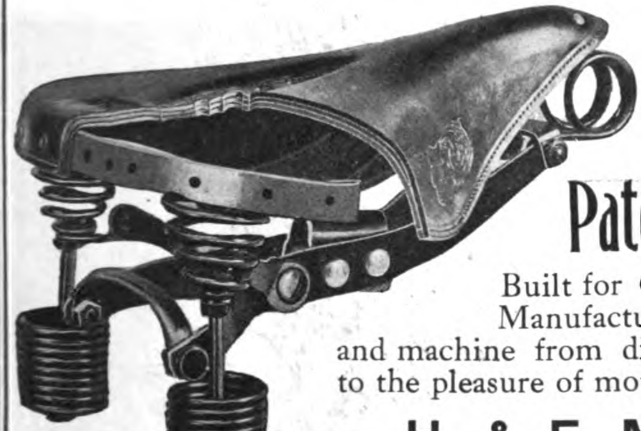
THE PIERCE CYCLE COMPANY, BUFFALO, N. Y.

When you strike rough road you feel the difference. Ask any rider the Facts about

MESINGER

Mesinger Cavalry No. 3

"CAVALRY"
AND
"STANDARD"
Ask what the
Patented Shock Absorbers Do



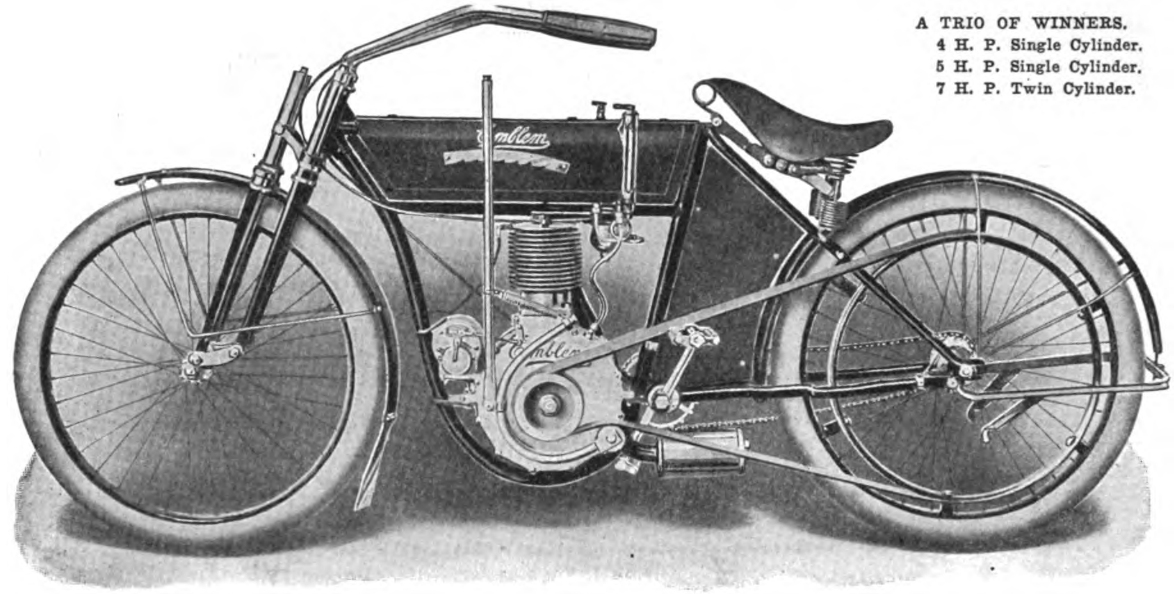
Built for COMFORT, tested and approved by many Manufacturers of Motorcycles. They save the rider and machine from disagreeable jolts, prevent side-sway and add to the pleasure of motorcycling.

H. & F. MESINGER MFG. CO.,
1801-1807 First Ave., - - - NEW YORK

Class, Power, Speed and Satisfaction are the Appealing Features of the

1910 EMBLEM MOTORCYCLES

A TRIO OF WINNERS.
4 H. P. Single Cylinder.
5 H. P. Single Cylinder.
7 H. P. Twin Cylinder.



EMBLEM MANUFACTURING CO., Angola (Erie Co.). N. Y.

ALSO MANUFACTURERS OF THE EMBLEM BICYCLE.

DISTRIBUTORS.

John T. Bill & Co., Los Angeles, for California
F. M. Spinning, Seattle, for Washington.
Meredith Cycle Co., Salt Lake City, for Utah.
Ballou & Wright, Portland, for Oregon.
Alexander-Sewald Co., Atlanta, Ga., for the South
Henry Keidel & Co., Balt., Md., for Va. & W. Va.

IS YOUR MOTORCYCLE INSURED

AGAINST DAMAGES?

THERE IS BUT ONE WAY—THE ONLY WAY

Thor

TRADE MARK

COASTER BRAKE

Built by people who know what they are doing and what you need. Insist upon it in your equipment

AURORA AUTOMATIC MACHINERY COMPANY

Licensed Manufacturer **Thor Building, Chicago, Ill.**

The Minneapolis

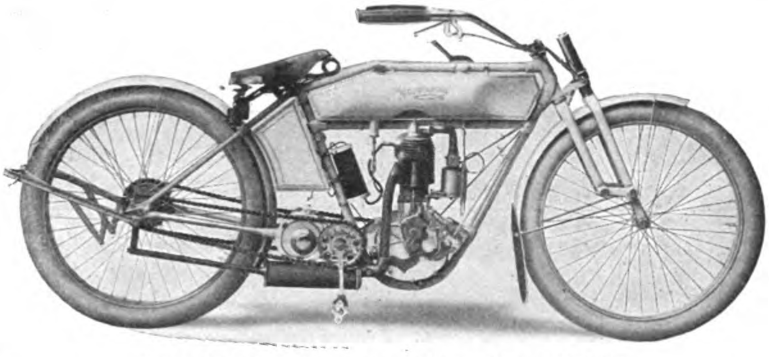
The BIG 4

Rides Like a Pullman Abundance of Power

The Two-Speed with a Reputation. Independent friction clutch on motor with the control on handle bar.

The SENSATION of the SEASON

Ride the Two-Speed Big 4 and be ahead of the game.

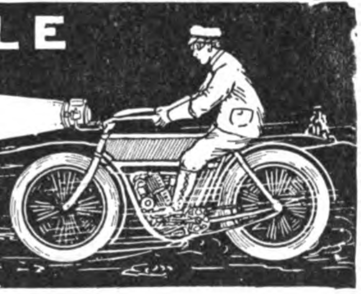


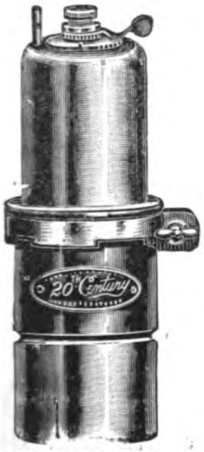
MODEL "K" TWO SPEED. THOR BIG 4 MOTOR

Minneapolis Motorcycle Co.,

517 South 7th Street
MINNEAPOLIS, MINN.

THE 20TH Century MOTORCYCLE HEAD and SEARCHLIGHTS



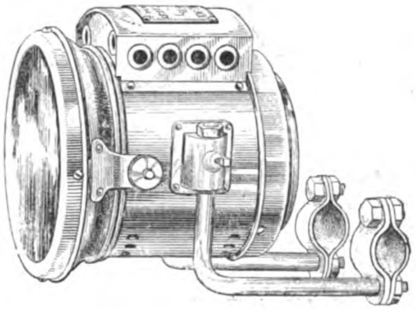


GENERATOR No. 10

¶ There is no guess-work about the 20th Century.

¶ Lamp No. 102 and Generator No. 10 are regularly furnished with brackets that *fit every motorcycle.*

¶ You cannot make a mistake in placing this lamp and generator on your machine. *Send for catalog*



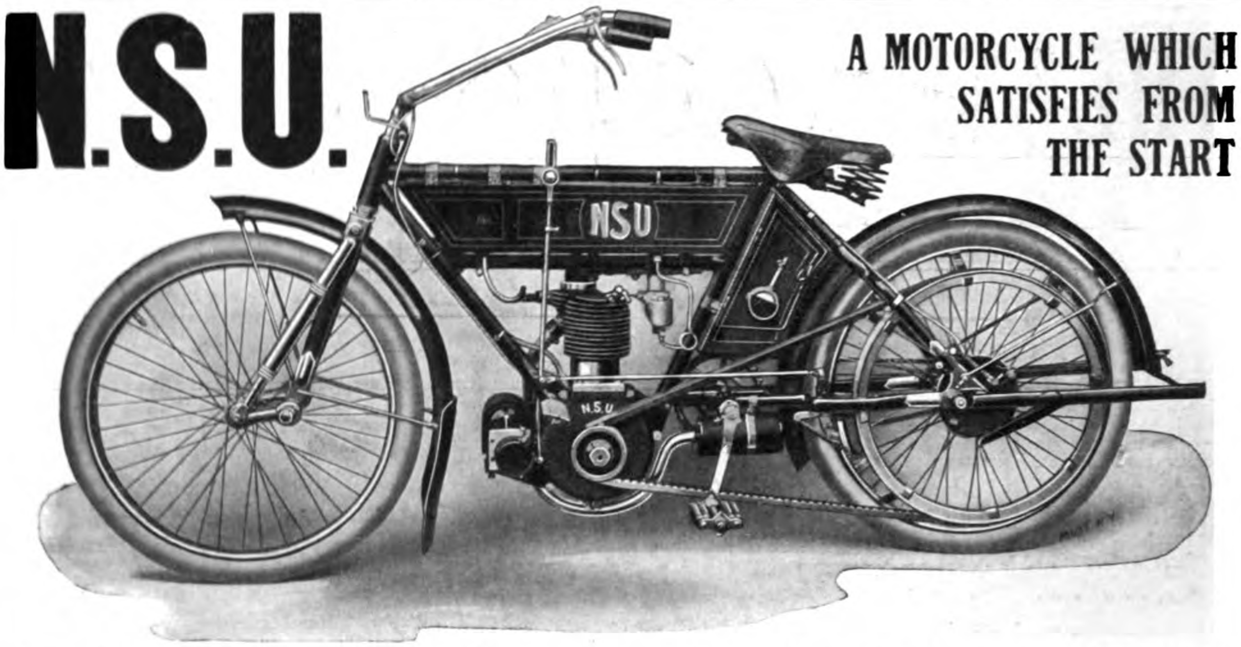
SEARCHLIGHT No. 102

20th Century Mfg Co

19 Warren St., New York City

N.S.U.

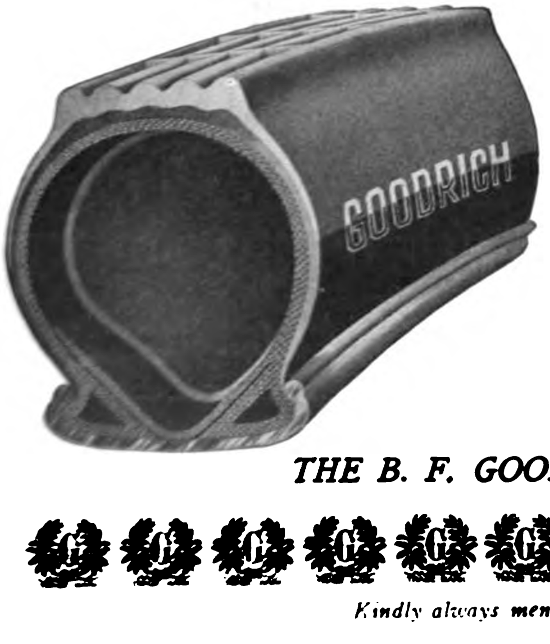
A MOTORCYCLE WHICH SATISFIES FROM THE START



The 3½ HP. F. A. M. Model, as you can see, is graceful, strong looking and simple, fitted with a TWO-SPEED GEAR, it will take you everywhere, from the day you uncrate it till you store it away for the winter. As an investment it's the best on the market, giving you more for your money, in value and equipment, than any motorcycle of to-day. We guarantee satisfaction, highest quality and superiority. We want agents in every county. Get Catalog "M." It tells about the other models, too

N. S. U. MOTOR CO. Members M. M. A. **206 West 76th St., New York City**

THE GOODRICH
WHITE HEAVY TREAD
Motorcycle Tire



¶ The Shape of the Tread *distributes wear evenly.* No single corrugation gets all the rub, leaving the part of the tread most used without a preventive of skidding.

¶ The Tread has a *third more rubber* than any other make.

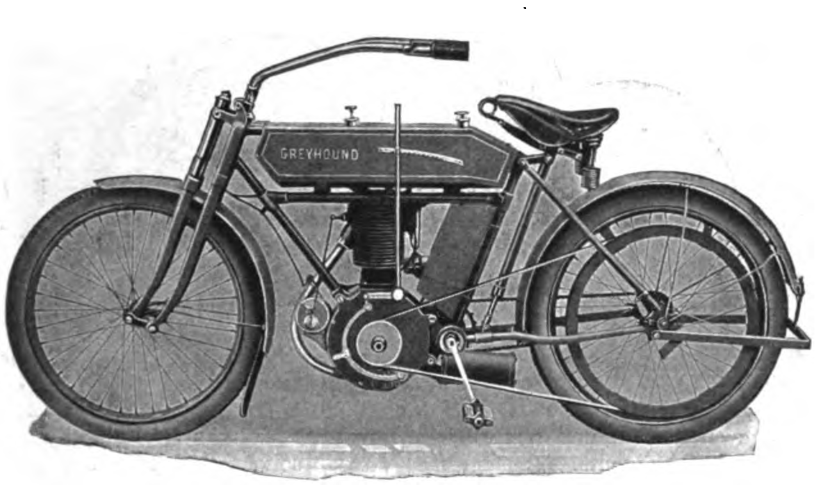
¶ It has *resilience* and *elasticity.* "The ridges bite in grip the riding surface and *prevent skidding.*"

¶ *Four Plies of Fabric*—one more than any other make—guarantee durability.

¶ For Enduring Wear "The Goodrich White Heavy Tread Motorcycle Tire is a Motorcycle Tire built like an Automobile Tire."

THE B. F. GOODRICH COMPANY, Akron, Ohio

THE SPLENDID GREYHOUND



is now made in sufficient quantity to warrant a considerable extension of the agency system.

This fact is being turned to advantage by a lot of bright, intelligent dealers over the country who recognize that the Greyhound is good to sell because it is so very good to ride.

We welcome correspondence with riders and dealers in regard to any motorcycle subject and will make favorable arrangements with desirable agents. Let us hear from you.

GREYHOUND MOTOR WORKS

Member Motorcycle Manufacturers' Association

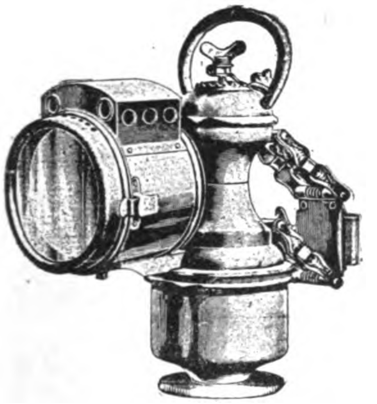
1459 Niagara St., Buffalo, N. Y.

SALES AGENTS: Metropolitan District—THE BROWN-DEWEY CO., 1697 Broadway, New York, N. Y.
Illinois, Indiana and Wisconsin—WHIPPLE, "The Motorcycle Man," 923 W. Jackson Blvd., Chicago, Ill.

Mr. Dealer! Our Goods Will Help To Increase Your Business

They will make friends for you. Motorcyclists who know that you handle our line will frequent your place to see the new goods. We are the largest importers of motorcycle accessories in this country and the first to import new novelties. You have no idea how much difference our goods will make on your trade. Suppose you write for our trade discounts.

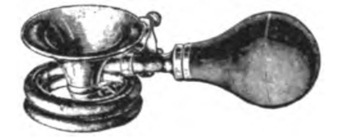
COMBINED LAMP AND GENERATOR



A combination of lamp and generator that is better than any ever devised for motorcycles. Lamp has a mangin mirror lens that projects a powerful light. Generator is very simple in operation. Complete outfit weighs only 23 ounces. Bracket on any motorcycle will fit it. Supplied in nickel only.

No. 88, Price, - - - - $5.00

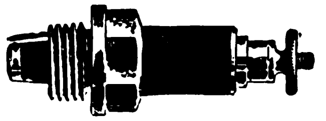
TRIPLE TWIST FROG HORN



Used mostly on motorcycles, runabouts, and on rear of tonneaus. Triple-twist construction produces a deep penetrating tone. Supplied in nickel or brass.

No. 10, Bell 3¼ Ins., Price, - $2.25
No. 11, Bell 4 Ins., Price, - 3.00

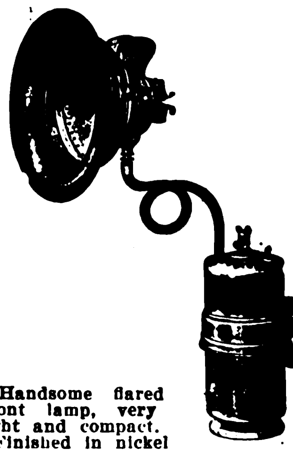
MICA MOTORCYCLE PLUG



Constructed from amber mica, with composition platinum points, ensuring positive spark.

No. 160, ½ inch and Metric, Price. 75c.

MOTORCYCLE LAMP SETS



Handsome flared front lamp, very light and compact. Finished in nickel and with nickel fittings. Interior of lamp highly polished, projecting a brilliant light. Generators are very simple in operation.

Set 55A and 55B Lamp 5 ins. diameter, 4½ ins. depth, and generator height 5½ ins., diameter 2½ ins.

Price, Complete, - - - $6.50

SEND FOR OUR NEW CATALOG AND TRADE LIST

THE MOTOR CAR EQUIPMENT CO., 55 Warren St., New York, N. Y. Wholesalers, Importers and Manufacturers

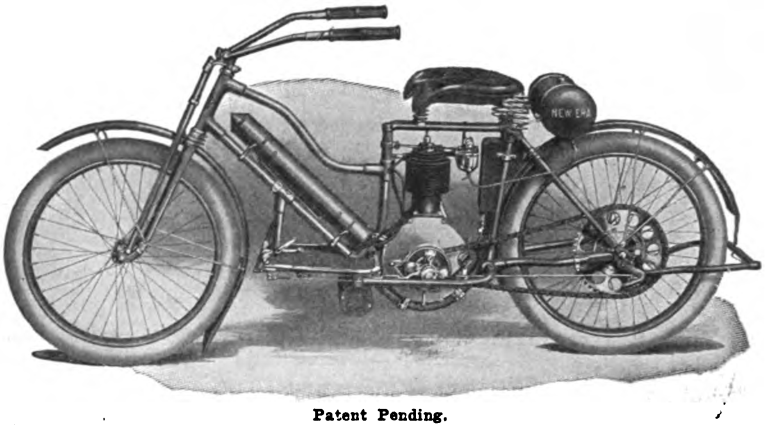
Kindly always mention the paper when writing to advertisers.

A NEW ERA IN MOTORCYCLING

was begun when

The New Era Auto-Cycle

made its appearance



Patent Pending.

It marked the beginning of *REAL* practicability and comfort.

Its long, low frame and spring-suspended, upholstered form seat and footboard (instead of pedals) makes it available for all ages and sizes and conditions of mankind; its two-speed transmission makes it master of any and all hills and renders possible the slow pace so necessary to safety and comfort on rough country roads and crowded city streets; its free engine (engine started by a crank like an automobile) makes it possible to start ANYWHERE from a standstill and without even "jacking up" the machine. Lots of these ideas are being and will be copied, but don't you pay for manufacturers' experiments. You don't have to do so when the New Era offers them in perfected form.

"Dear Sirs: In regard to inquiry, can say that the New Era Auto-Cycle is much beyond my expectations. I purchased my machine April 11, 1909, and up to the first of the year 1910 I had ridden something over 10,000 miles, and have a good machine yet. For your work or any other, racing excepted, I would not give one 'NEW ERA' for a car load of other makes for everyday use. Mud, snow, hills, level ground and good roads are all the same to the 'NEW ERA.' I am in the fire insurance business and use my machine in all kinds of weather and on all kinds of roads. Yours,
"Greenville, Ohio, Feb. 18th, 1910. O. P. McGRIFF."

Write for advance circular and agency proposition.

The New Era Auto-Cycle Co.
No. 22 Dale Ave. Dayton, Ohio

Philo B. Sapp, Dalton, Ga., rides on Morgan & Wright Motorcycle Tires and says of them

"This is the third season for a pair of Morgan & Wright Tires on my machine. They wear *like a pig's nose.*"

There probably have been few improvements in the wearing qualities of pigs' noses in the past two years, but we know there have been some great improvements made in our tires. Consequently, we feel perfectly safe in saying that Morgan & Wright Motorcycle Tires now wear *better* than a pig's nose.

We are now making a White Tread Tire with the toughest tread ever put on a Motorcycle Tire. Specify them on your machine. They will cut a big slice off your machine maintenance expense.

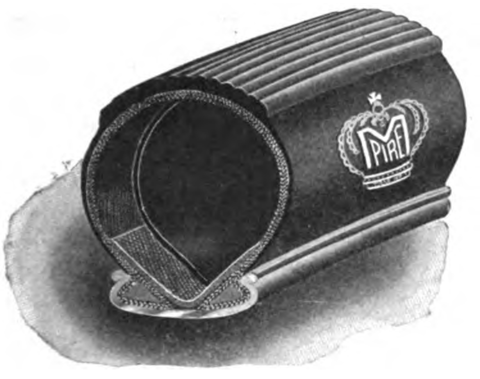
MORGAN & WRIGHT : : : : DETROIT

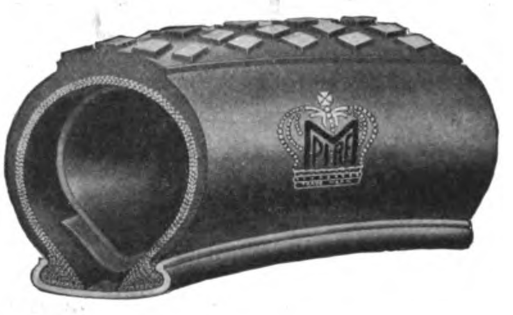
EmpireTires
WEAR LONGEST

Empire molded motorcycle tires are extra heavy and extra strong. They are made to give proper service on the heavier and faster motorcycles now being generally made. The best quality of Sea Island fabric is used—closely woven, of the same type as used in automobile tire construction. High class rubber is used throughout, which will give great wear and withstand great abuse.

CORRUGATED TREAD TIRE

This design will aid greatly in preventing side slipping, without detracting from the resilience or easy-riding quality of the tire in straight riding.





The Checkered Tread is the best non-skid tire ever offered for motorcyclists' use. It is very handsome in appearance. The rubber used in the tread is of a composition that gives the largest possible service. One of these tires ought to be on the rear of every motorcycle, the year around, as a guarantee against dangerous side slips.

EMPIRE TIRE COMPANY
TRENTON, N. J.

1910 PITTSFIELD 1910

SPARK COILS, SPARK PLUGS, SWITCHES, TIMERS AND DISTRIBUTERS AND MAGNETOS

MADE IN AMERICA HAVE NO SUPERIOR IN THE MARKET

The following testimonial was recently received by the Pittsfield Spark Coil Co., unsolicited.

"Columbus, Ohio, Oct. 11th, 1909.

"PITTSFIELD SPARK COIL CO.,
"Dalton, Mass.

"Gentlemen:—

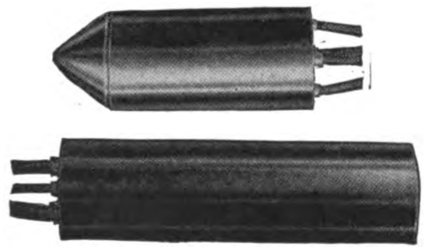
"I think you will be interested to know I am using the best coil "PITTSFIELD," on my run from San Francisco to New Orleans and New York.

"I have covered 5,763 miles, 2,022 on railroad cross ties, and have had a terrible trip. Have been out thirty-seven days and had no ignition trouble. Your coil has stood unreasonable endurance, exposed to water, heat and cold in many States.

"I am an old-time rider and one who knows a goed thing.

"Yours truly.
(Signed) "H. F. MERIWEATHER."

Magneto Spark Plug



A Line of Pittsfield Goods is carried by H. V. Greenwood, 166 Lake Street, Chicago

Write today for particulars, catalogues, price lists and instructions.

PITTSFIELD SPARK COIL CO., Flansbury Ave., Dalton, Mass.

Sales Representatives: New England, W. J. Connell, 36 Columbus Avenue, Boston. **Atlantic States,** Thomas J.Wetzel, 17 West 42nd Street, New York. **Central States,** K. Franklin Peterson, H. V. Greenwood, 166 Lake Street, Chicago **Michigan.** L. D. Bolton, 319 Hammond Building, Detroit. **Pacific Coast,** The Laugenour Co., San Francisco.

The Neverout

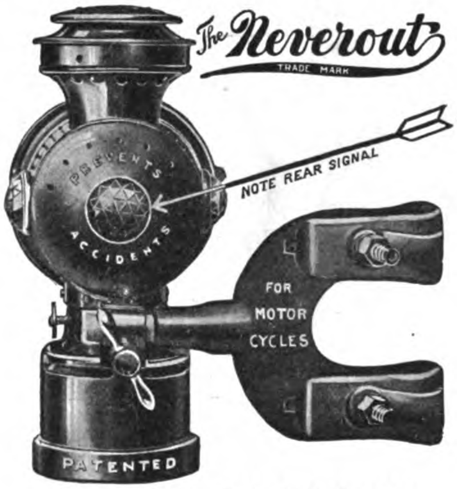
TRADE MARK

MOTORCYCLE OIL LAMP

SHOWING A RED REAR LIGHT

¶ The Neverout burns kerosene ten hours with one filling, and will stay lighted under any and all conditions. ¶ All riveted—will not rattle apart over roughest roads.
¶ Made in gun metal, brass or nickel finish

AN OIL LAMP THAT MAKES MORE LIGHT THAN MOST GAS LAMPS



Lamp Weighs Only 12½ Ounces

GUARANTEED TO STAY LIGHTED OR MONEY REFUNDED

¶ The Neverout is equipped with a PATENT GLASS COVERED REFLECTOR OF GERMAN SILVER, instantly removable, never loses its original brilliancy.
¶ The only perfect and reliable motorcycle lamp made.
¶ Double clamp bracket furnished, fastens lamp securely to fork of motorcycle. No danger of shaking off, and SHOWS RED REAR DANGER SIGNAL.

Sold by leading jobbers and dealers everywhere

ROSE MANUFACTURING COMPANY

933 ARCH STREET, PHILADELPHIA, U. S. A.

The Neverout complies with the laws of the various States and Municipalities

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THE QUESTION IS

WHY NOT *SPECIFY* THE

SHOEMAKER
Standard
MOTORCYCLE
BELT

("V" Shape or Flat)

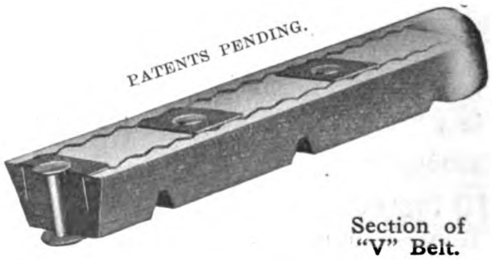
ON *YOUR* NEW MACHINE?

Others have, to their great satisfaction, because *these* belts do not slip, are not affected by water, oil, grease, gas or climatic conditions, require no dressing and are the strongest belts on the market.

A booklet telling how and of what these belts are made is yours for the asking. Write for it today.

APEX BELTING CO.

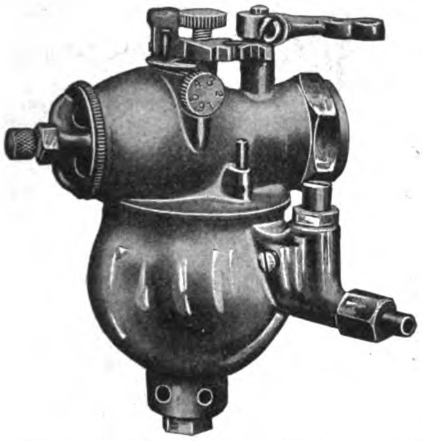
242 Chestnut Street
PHILADELPHIA


PATENTS PENDING.

Section of "V" Belt.

Heitger Model F 1910

Motorcycle Carbureter



¾ INCH FEMALE THREADS, CUT ½ FULL SIZE.

It has mechanical control of gasoline feed to mixture, independent gasoline adjustments for both low and full speeds, indexed adjusting screws, throttle universal, can be set to operate from either side, straight line gasoline connection, new design float chamber, can be swiveled to any position, its shape reduces splashing of liquid to the minimum, handy priming stem, improved, durable, reliable air valve, all gasoline adjusting screws indexed, and ball rachet retained, all balls and springs of bronze.. ¾-inch female threads. List $10.00. Fully guaranteed.

This Model is all one desires for motorcycle use, and is being pronounced the acme of perfection by hundreds of riders, manufacturers, agents, etc. Has been adopted by the Merkel-Light, Wagner and Emblem motorcycle manufacturers and others as exclusive equipment for 1910.

If you do not use one on your old or new machine this season you will miss it, as it makes a new machine of an old one, and a better one of a new one. Fully guaranteed in every case. Live agents wanted everywhere.

HEITGER CARBURETER CO., Indianapolis, Ind.
208 WEST SOUTH STREET

Wagner

MOTOR CYCLES

PROVEN QUALITY

SOMETHING RADICALLY DIFFERENT

Not an Imitation, but the

ORIGINAL AND ONLY

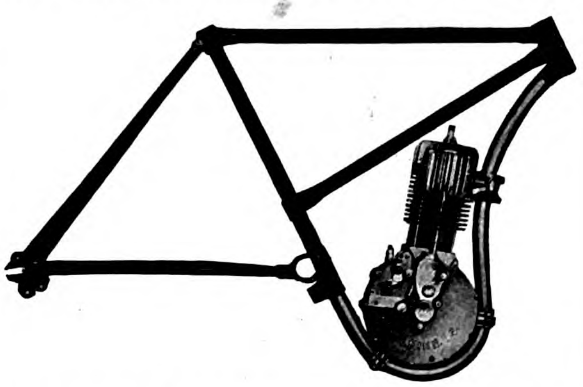
DIAMOND--LOOP FRAME

AND

TWIN FORK

IN THE WORLD

Costs no more than the other kind and it's cheaper than Accident Insurance

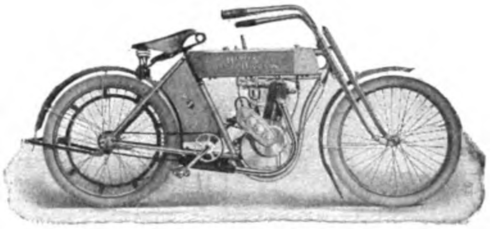


IMMEDIATE DELIVERIES

WAGNER MOTORCYCLE CO.
ST. PAUL

CHICAGO	DETROIT
1610 Michigan Ave.	253-5 Jefferson Ave.

THE
Harley-Davidson



is **DESIGNED RIGHT**
BUILT RIGHT
and **TESTED RIGHT**

¶ When you purchase a Harley-Davidson, you are buying satisfaction, not discontent.

Harley-Davidson Motor Co.
MILWAUKEE, WIS.

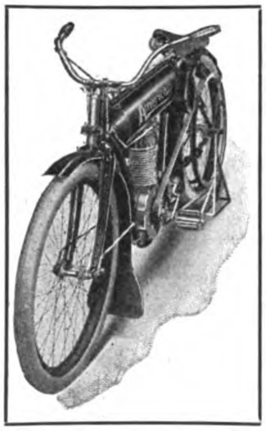
Thor

The Motor Cycle Supreme

WORKMANSHIP
EXPERIENCE
SATISFACTION
POWER, SPEED

USED BY THOUSANDS
WHY NOT YOU?

AURORA AUTOMATIC MACHINERY CO.
Thor Building Chicago



The
American

¶Our agency proposition is the best of any.

¶We give you a living discount.

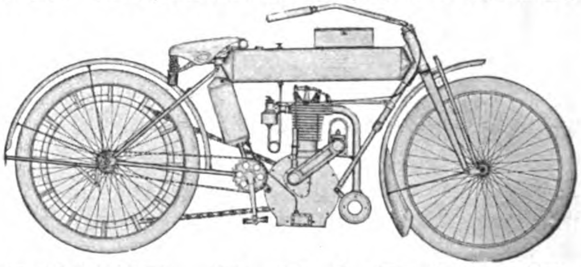
¶We build both the Square Line frame and the Loop frame.

¶Write us today for the best Agency offer made by any manufacturer.

¶It is a winner. So are the AMERICAN machines. 1910 Models ready for delivery. 1910 catalogue now out; we will mail it on request. Write us on your business letter head.

American Motor Cycle Co.
1370 WELLS STREET CHICAGO, ILL.

WHY YOU, MR. DEALER, SHOULD SELL



THE MARVEL

Because it has the Curtiss 4-5 h. p. Overhead Valve Motor that no single cylinder motor can equal.

Because the Frame is strong and neat in appearance. The 2½ gallon Frame tube cannot break, dent or leak. Low saddle position.

Because the value is equal or better than any $250 Motorcycle, and yet sells for only $225.

Because nothing but the best of everything is used on the Marvel, including Bosch Magneto, Eclipse Free Engine Pulley, N. S. U. Two Speed Pulley, 2½" Tires, 1⅛" V Belt, and Sager Patent Spring Fork.

Because Its Saddle position, Correct shape, Sager Style Spring Fork, Long Wheel Base and Perfect Controls make it a very comfortable riding Motorcycle.

Because you can inspect each part without having to remove another part to get at it.

Because wherever the Marvel Motorcycle is seen there will immediately be a big demand for it, and you cannot afford to let your competitor sell it in your locality.

MARVEL MOTORCYCLE CO., Hammondsport, N. Y.
Member M. M. A.

475,000
BOSCH
Magnetos
Manufactured
and Sold

This clearly shows that Bosch Magnetos are rightly called,
"The World's Standard Ignition"

Let Us Send You a Free Copy of
The Bosch News

See Us at BUFFALO

BOSCH MAGNETO COMPANY
223-225 West 46th St., New York

Chicago Branch: 1253 Michigan Ave.
San Francisco Branch: 357 Van Ness Ave.
Detroit Branch: 870 Woodward Ave.

World's Records
Broken by

THE FLYING MERKEL

At the Motorcycle Meet of January 30th, on the Coliseum Track, Los Angeles, Cal., **The Flying Merkel broke the World's Professional Competition Record.**

This was the 30-minute race for professionals, with four entries. Time, ½ hour—35½ miles. The 10-mile, as well as all records from 20 to 35 miles, also the ½-hour record, were broken.

How's that for the Merkel Ball-Bearing Motor?

If you want to know more about this wonderful motorcycle, ask us for Catalog B.

Merkel-Light Motor Co.
POTTSTOWN, PENNSYLVANIA
MEMBERS OF M.M.A.

TWO BATTERY
COIL!

With or Without
Plug Switch

Single and Double
Cylinder Types

See It at the Boston Show

The most reliable and durable coil yet. Can be put in battery case with two batteries and will run you 1,000 to 1,500 miles.

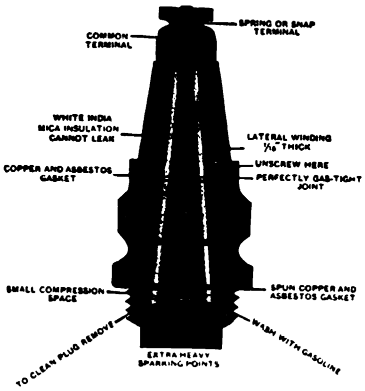
Write for particulars now.

MADE BY
CENTRAL INSULATING COMPANY
LAFAYETTE, IND.

Eastern Representatives: T. F. Russell & Co., Boston.
Pacific Coast Distributers: B. F. Kierulff, Jr., & Co.
Los Angeles San Francisco Seattle

SPLITDORF
Motorcycle Plug

WILL OUTLAST YOUR MOTOR


SPRING OR SNAP TERMINAL
COMMON TERMINAL
WHITE INDIA MICA INSULATION CANNOT LEAK
LATERAL WINDING 1/16" THICK
COPPER AND ASBESTOS GASKET
UNSCREW HERE
PERFECTLY GAS-TIGHT JOINT
SMALL COMPRESSION SPACE
SPUN COPPER AND ASBESTOS GASKET
TO CLEAN PLUG REMOVE
WASH WITH GASOLINE
EXTRA HEAVY SPARKING POINTS

Made especially to meet the peculiar requirements of your Motorcycle engine, and will give much better Motorcycle ignition than is possible with any ordinary Plug.

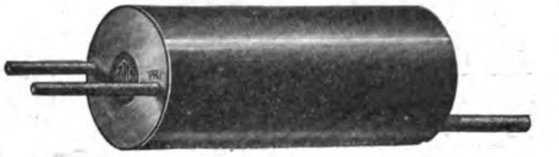
Insist on a SPLITDORF Plug if you want the best results day after day.

At all live dealers or direct.

C. F. SPLITDORF
Walton Ave. and 138th St.
Branch, 1679 Broadway
NEW YORK

PFANSTIEHL COILS

FOR MOTORCYCLES ARE GUARANTEED FOR FIVE YEARS



The Famous Pfanstiehl Pancake system of winding, combined with a perfect balance of parts, and high grade construtcion, assures you of INDESTRUCTIBILITY, UNIFORMITY, RELIABILITY, and a strictly high grade coil at a reasonable price.

Constructed for use in connection with either 2 or 3 dry cells. Balanced to meet special requirements.

The New Pfanstiehl Motorcycle Magneto

FILLS A LONG FELT WANT

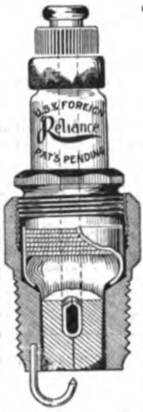
Strong and substantial in construction, though neat and compact in appearance.

Constructed by Pfanstiehl patented methods and covered by Pfanstiehl broad guarantees.

Not an experiment, but something a little more advanced than anything you have yet seen.

Don't fail to test this machine before closing contracts. Our prices will command your immediate attention and interest.

Pfanstiehl Electrical Laboratory
NORTH CHICAGO, ILL.

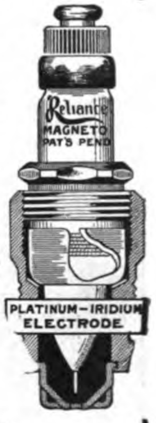


REGULAR TYPE $1.00

The Regular Reliance is the famous "Spark in Water" plug known the world over as the plug that can't short-circuit. Electrically different from any other plug—with every part accurately machined, making them mechanically as well as electrically correct.

MAGNETO TYPE $1.25

The Reliance Magneto plug is designed along the Reliance principles, but built especially for service when the current is generated by a magneto. It is especially desirable and serviceable when an excess of oil is used.



Send to-day for interesting booklet—with it we send the most puzzling electrical novelty of the day—sent for the asking.

JEFFERY-DEWITT CO.

Spark Plug Manufacturers, 230 High St., Newark, N. J.

S. & F. Stephenson, Agents for United Kingdom, 19 Canning Place, Liverpool, Eng.
Armand Frey & Co., Agents for Continental Europe, Berlin, Germany.

Prest-O-Lite Gas Tank

As Necessary on Motorcycles As on Automobiles

A poor light is both a nuisance and a standing invitation to danger, accident and expense.

Prest-O-Lite gives steady, strong and reliable illumination. The only really economical system.

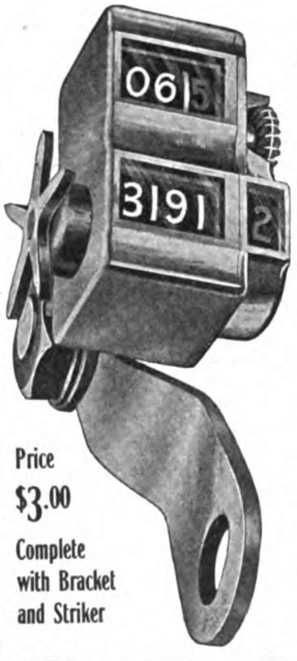
Prest-O-Lite Tank (Motorcycle Size), 12 inches long; 4 inches diameter. Weight, 7 lbs. Holds 10 ft. of gas—40 to 60 hours of light. This size is also used on automobiles, as a reserve supply.

PRICE $10. Full tank in exchange for empty **60c.**

The Prest-O-Lite Co. 246 E. South St
Indianapolis, Ind.

Branches at New York, Boston, Philadelphia, Cleveland, Chicago, Detroit, Providence (R. I.), Minneapolis, Omaha, Dallas, Los Angeles and San Francisco

4000 EXCHANGE AGENTS



Veeder Motorcycle Trip Cyclometer

Made heavy and durable for the hard usage it receives on the Motorcycle.

Adjustable Bracket fits all makes of machines.

Large and strong striker.

Made for 24 in., 26 in. and 28 in. wheels.

Price
$3.00
Complete
with Bracket
and Striker

The Veeder Mfg. Co.
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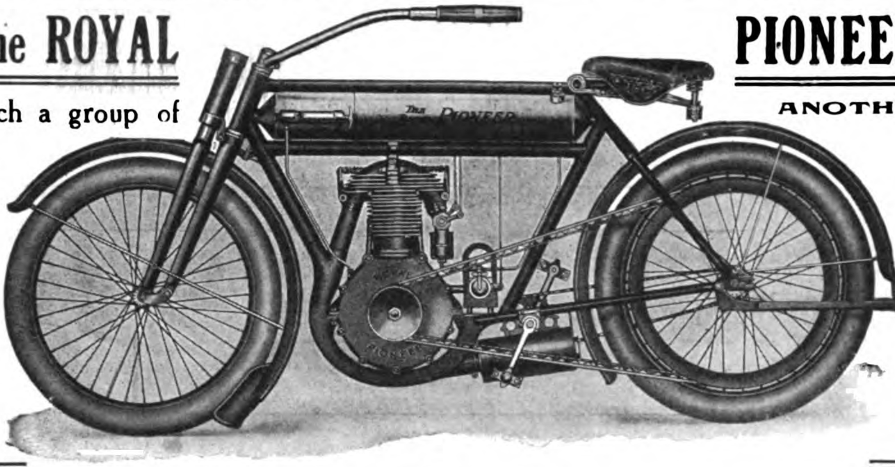

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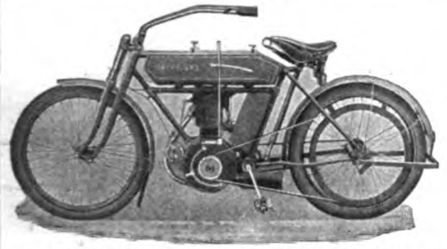

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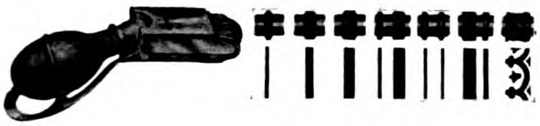

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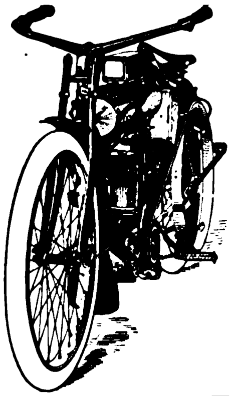

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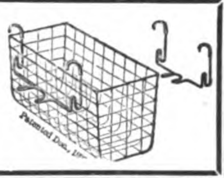

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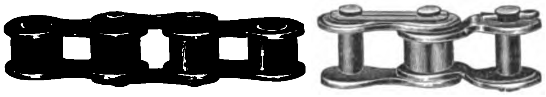

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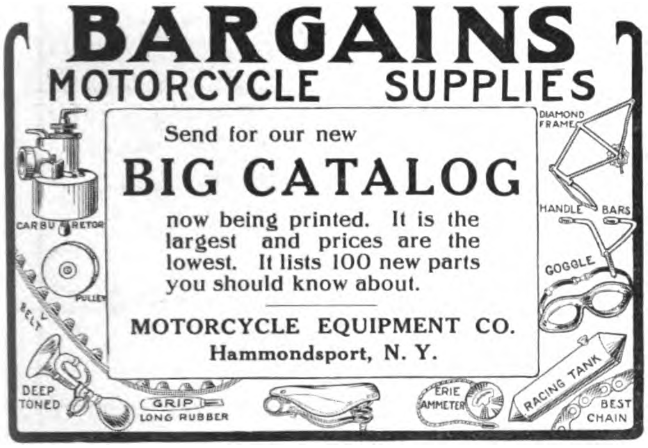
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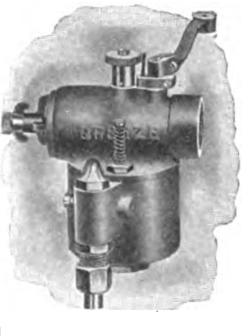

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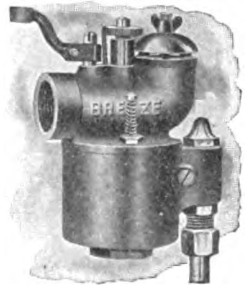

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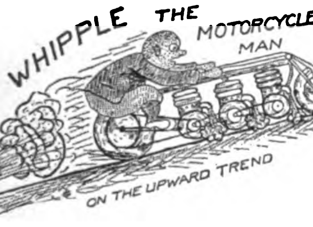
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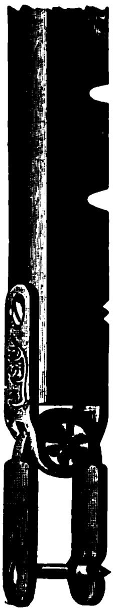

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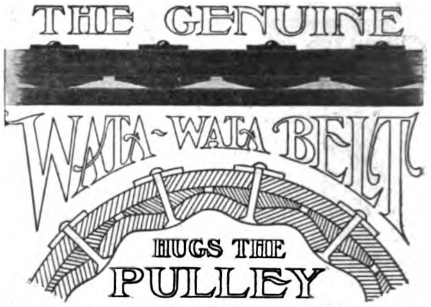

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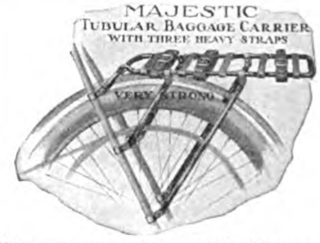

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MOTORCYCLE ILLUSTRATED

Vol. V. No. 7. April 1, 1910

PUBLISHED BY THE MOTORCYCLE PUBLISHING CO., 299 BROADWAY, NEW YORK CITY.

CONFESSIONS OF A "PRIVATE OWNER"

A Conscience-Stricken Rider, Well-Known Throughout the Country, Unburdens Himself—A Few Plain and Unvarnished Statements

THE mention of the word "confession" usually brings to mind vague impressions of prospective explanations of "How and Why I Did It." To some the following may be of casual interest merely, while to others no doubt it will strike a personal note. Regardless of the personal views of those who read these revelations, I would emphasize the fact that the majority of the evils practiced in the racing game in years gone by are no longer possible. The new F. A. M. competition rules, enacted at the Indianapolis Convention last year, are so iron-clad and the lines are drawn so fine that it requires a genuine strategist to break them and get away with the job. But that was not always the case. It was certainly not so when the private owner classification was first adopted.

My first riding experience as a "private owner" was during the National Endurance Run of 190—. This contest, by the way, marked the initial efforts of the F. A. M. to divide the amateur riders into two divisions, namely "private owners" and "trade riders." A few months previous to the receipt of entry blanks for this run, I had become the proud owner of a powerful twin cylinder machine. But this particular mount, despite its many excellent characteristics and although it gave wonderful service on good roads, was not adapted to being driven through deep sand such as was found along the route of this run. To make a long story short, I had some correspondence with the firm from which I had purchased this machine with the result that I entered the run with a motorcycle specially built and particularly well balanced for sand riding. I rode this machine as a private owner, showing a fake receipt and winning a gold medal for a perfect score.

My next breach of the rules occurred at a hill climb in which I romped away with the first prize in my class, although I rode a special machine doctored to conform with the then extant stock machine ruling. In another class at this very same climb I managed to slip one over the referee by riding a motor with auxiliary exhaust ports, which were supposed to have been prohibited. I managed this by leaving the metal bands covering the port holes slightly loose and opening them with a kick of the foot after my machine had started. Not long after that I was given to understand that some one, namely the Chairman of the Competition Committee at that time, was getting wise to some of our practices and I thereupon decided to follow the straight and narrow path. This I did throughout an entire season.

Next year, however, I changed to another make of machine. If I had simply committed breaches of the rules before, I now entirely shattered the regulations which came into conflict with my purposes. My first expense check, in any event, was all out of proportion to the actual cost to me of attending the race meet to which my manufacturer sent me. Other experiences of a similar character followed in quick order and soon I was hopelessly involved. I remember distinctly an occasion where three of us were receiving expenses, not from the manufacturer, but this time from a promoter. Neither of us won a first prize, but we received several times as much as the apparent winners, who happened in this case to make an unexpected clean-up.

My most serious offense I consider the ownership of two machines with duplicate numbers. My friends often expressed wonderment why my motor should always have been in such excellent condition. Why not? I always had one of them in the shop. Of course, many of my competitors knew this but those who ride to any extent appreciate that among athletes there is usually a sort of understanding and they openly joke over more or less serious infractions of the rules.

Since the last F. A. M. meet, I have become a "Yellow Dog" and it is in that class that I propose to reform. Although we have plenty of leeway, respect for the best competition chairman we have ever had is sure to make us think twice before we attempt to break the rules. The rules now in force are such that while you may beat them temporarily in the end they and the Chairman of the Competition Committee will get the better of you. And lest some of my readers get the impression that most track riders are simply a bunch of rogues, I would make it very plain that just the contrary is the truth. Nine out of ten of the riders are as anxious to have the rules enforced as are the officials themselves. But sometimes the temptations are too great. When, for instance, you are placed against a crack field on a poor track with excellent chances of breaking your neck, is it any wonder that you sometimes "fall" for something better than the little pewter cup or medal that is known and designated as the first prize? When the competition committee forces promoters to hang up better awards and guarantee their delivery to the winners, under fair and decent conditions, there will be very few riders who will not ride "strictly on the level." The crooked rider is as a rule not such from choice. The majority of us would rather be on the square.

TO CLEAN AND ADJUST A MAGNETO

By Alfred H. Bartsch

I FIND from reading numerous communications that there is still a number of boys who believe the magneto to be a "mystery box," subject to the likelihood of its continually getting out of order. Such riders may rest in peace, however, for one of the most wonderful mechanisms for continuous operation without attention is a standard magneto. They will perform their work satisfactorily for a long period without the slightest attention or adjustment beyond occasional oiling. However, it is not fair to prolong this indifference to the point of utter neglect.

Many riders let their magnetos alone as long as they serve to explode the gas in the cylinder. However, a useful "telltale" may be found by observing the position of the magneto advance lever after 1,500 to 2,000 miles. If it has to be unduly advanced to insure an easy start, an adjustment would prove beneficial. It is simply lack of ordinary care that has obtained for the magneto the quite undeserved reputation of being hard to start; ignorance or poor carbureter adjustment is nine times out of ten the real cause of poor starting.

For ordinary adjustment, a magneto is easily taken apart, all the tools required being a small screw driver and the small spanner supplied with the magneto. To simplify matters, it would be better if the motorcycle could be brought up so that the magneto is on a level with the eye, when one will recognize immediately that the working parts are neither as inaccessible nor as complicated as a split-second stop-watch—the usual opinion.

The Operation Begins

With a stiff brush clean off all the dust and dirt from the magneto, release the outer flat spring, holding the brass cover flat, by loosening the screw, and push to one side; then remove the brass cover from the fibre washer and the contacts, etc., will be in sight. One contact is fixed, while the other is on the bell crank with a fiber block or roller on the other end, controlled by a fibre ring with flat raised portions or steel blocks, as the model may be, to cause the breaking apart of the joints. Turn the engine round and carefully note the break or distance at which the points are separated; to the untrained eye it appears infinitesimal; its actual measurement should be 1/50th of an inch—the approximate thickness of a calling card. Detach the brass spring by removing one of the screws, push back the little catch over the first bearing and the bell crank can be easily pulled out with the fingers. If the motor or firing has been sluggish, the platinum screw will show a black deposit or be badly pitted. This must be scraped bright with a knife or smoothed over with a fine jewelers' file The use of emery cloth or sandpaper or hammering is not advised by the writer. The former leaves grit embedded in the platinum, making good contact impossible; the latter is too strenuous. The engine should now be turned over until the fixed contact assumes a convenient position; it can be leveled up in the same way without removal. Replace the respective parts in their order, wipe the carbon in the cover plate, clean with gasoline, also the inside of the fiber ring, etc.; clean the brass caps and retaining spring, screwing the latter up tightly after all parts have been carefully replaced.

The Carbons.

Passing to the other side of the magneto, carefully unscrew the high-tension contact brush or brushes, if on a twin cylinder machine, clean the carbon with a rag and gasoline, pull the spring out a bit to improve the pressure and replace with care, so as not to hurt the hard rubber threads. Next look to the spark plugs, as they are almost as important as the magneto in facilitating an easy start, clean the points with a fine file, and set them very closely together, just enough to let daylight through. See that all terminals are brightened and thoroughly cleaned, all wires intact and insulated and as short as possible without being drawn too tightly. If your carbureter is O. K. you will now note an appreciable difference in starting and general running.

A Good Tip.

On one of my long tours last season I had the pleasure of a veteran's company. Although his kit contained few spare parts, he insisted that it should comprise at any rate a complete magneto contact breaker. Now as this fitment reaches pretty far into one's pocketbook, I could not see that it was quite necessary. However, during our trip luck would have it that my engine started to run rather sluggishly but could not for the life of me discover the trouble. Much against my will I agreed to try my companion's spare contact breaker, and, much to my surprise, an immediate change for the better manifested itself in my motor. When we stopped for dinner that evening we examined the old contact breaker minutely, only to find nothing amiss. But just as I was about to give up I noticed that the *C* or light arc spring which works the bell crank was very weak. Just as an experiment we exchanged the new spring to the old breaker and replaced it on the machine. The results were as though the contact breaker was entirely new. This tip may be of considerable value to tourists. It seems to me that the reason this spring is liable to weaken after a while, is that it is almost impossible to make a decided coil or clock spring of it, and it is rather hard to make the temper last in this form without making the spring too stiff.

MOTORCYCLE FOR MISSIONARY WORK.

ONE thousand men at the Central Presbyterian Church in Denver recently made their initial contributions to the Laymen's Movement for Christianizing the world by sending one motorcycle as an assistant missionary to the south of India, where he has been for many years.

This unique assistant is to work in the missionary campaign under the guidance of Sherwood Eddy, supervising missionary in the south of India, and one of the leaders in the Laymen's Missionary Convention in Colorado. The machine was presented to Mr. Eddy at the close of his address, and he was instructed to take it with him to India and to use it in place of the bicycle which he has worn out in traveling from one to the other of the scores of stations under his jurisdiction.

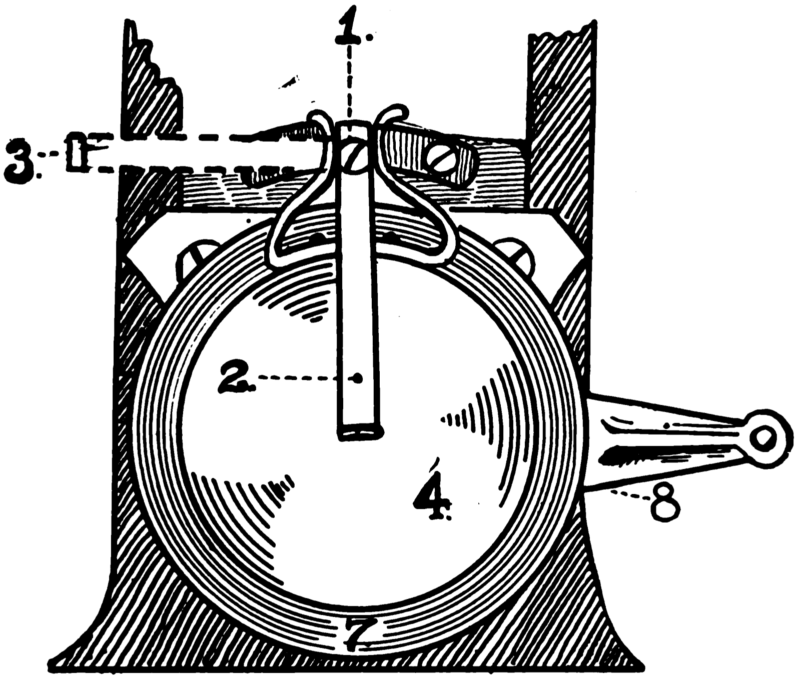
INDIANS BUY MOTORCYCLES.

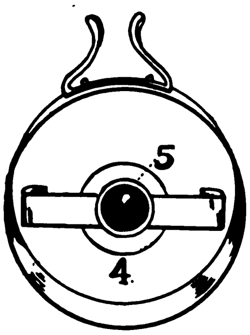
SISSETON INDIAN AGENCY, S. D.—The Sioux Indians belonging at this agency—or at least some of them—are becoming quite aristocratic, and no longer are satisfied to make their journeys in buggies or on horseback, doubtless regarding this method out of fashion. Within a few days nine of them have placed orders with a single Webster concern for motorcycles, and it is believed others have placed similar orders elsewhere.

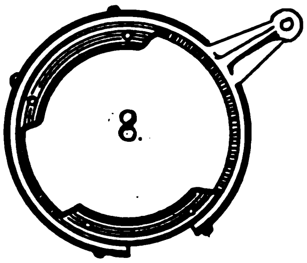
* *

THE first race meet in New Jersey will be conducted at the Plainfield Driving Park April 16. Its promoters are Claude Holgate and Joseph H. Gunn, of Newark, and A. D. Honeyman, of the Plainfield Bicycle Club. The card will consist of six motorcycle and two bicycle contests.

READY REFERENCE CHART—MAGNETO ADJUSTMENTS





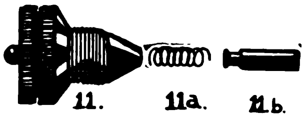


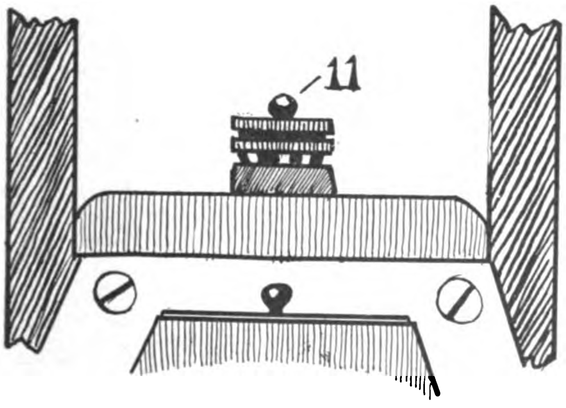
UNSCREW No. 1 fastening screw and swing flat spring No. 2 to position No. 3, when No. 4, brass end caps can be removed; also No. 7, fiber ring for timing lever, No 8, which can then be easily worked or pried off, leaving commutator free.

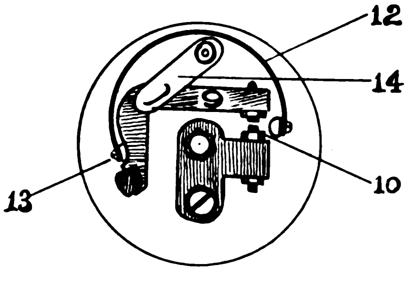
Push flat spring No. 14 resting on bell crank No. 9 to one side, unscrew No. 13 so as arc spring No. 12 will be free, and bell crank No. 9 can be lifted off with the fingers, allowing platinum points, No. 10, to be properly trued.

Carbon brush, No. 11, can be screwed out with the fingers or very carefuly with a pliers, spring 11a can be pulled out a bit, and carbon brush, No. 11b, cleaned and carefully replaced. Guide to numbered parts:

No. 1. Fastening screw.
2. Flat spring.
4. Brass cover plate.
5. Carbon brush.
7. Fibre ring.
8. Timing lever, showing segments which cause the make and brake of platinum points.
9. Bell crank lever.
10. Platinum screws.
11. Carbon brush holder.
11a. Spring.
11b. Carbon.
12. C spring or arc spring.
13. Screw holding same.
14. Flat spring holding bell crank lever.







HOW TO LOCATE A MISFIRE

By the Nomad.

ONE of the most annoying things to a motorcyclist is an unaccountable misfire. It generally comes along when one is in a hurry and many parasangs from the old homestead. It develops suddenly, when the engine is purring along peacefully—then—skip!—skip!!—we swear and frown until there is nothing to do but to hoist one's noble form out of the saddle and to tinker by the roadside in the gathering gloom. It generally starts to rain about this time, but that is only another mystery not involved in this chapter of woes. It is sufficient that of all the ills to which the motorcycle is heir, the misfire attack can be beaten only by the "secret puncture," but the latter is another story for future digestion. It is the "skip-skip-poppety-bang" business which we are up against now, and which claims the earnest attention of our nimble think tanks. Lucky is he who can "limp" for a mile or two to a hostelry, and after a flagon of that which made a certain city famous, tackle the job with a light heart and general contentment withal. I am one who likes to work under peaceful, easy conditions, as the reader may surmise, and if only I can coax the machine to a comfortable homelike spot, aforesaid amber beverage included, I can claim contentment with the world in general. So much for the question of internal lubrication.

Various Causes of Electrical Trouble.

When misfiring sets in one usually jumps to the conclusion that it is due to some part of the ignition system, and as this is the most complicated and delicate part of a motorcycle, the guess is usually accurate and to the point. Yet the carbureter is often the real offender, and one can certainly trace the cause to the fuel supply system if nothing comes to light after a systematic and thorough examination of the electrical apparatus. The various causes of trouble in the sparking system include sooty or cracked spark plugs, loose connections at battery, plug, coil, switch or magnets, short-circuit in the wiring system, battery run down, dirt on timer, badly adjusted timer, or vibrator of the coil, punctured condenser, pitted contacts or coil vibrators, wear in timer, cracked insulation in timer, moisture or water on timer, wiring, etc. In the magneto system the misfire might be due to faulty spark plug, short circuit in wiring or switch or pitted contacts, etc., as already described in dealing with magneto ignition. Again, water on the magneto will cause serious misfiring or even a complete stallage.

The Most Prevalent Carbureter Difficulties.

In the fuel system we have the chance of water in the carbureter, "bunged-up" strainers, airlock in the gasoline feed pipe, bent float-valve spindle, leaky union or hole in the inlet pipe, stoppage in the inlet pipe (rare), leaky float, bad gasoline and clogged jet. In dealing collectively with these causes of misfiring, I have done my best to enumerate the general difficulties encountered both in ignition and carburetion. These are the most common forms of trouble. I could not deal with every cause, as this is probably beyond any man's ingenuity; neither can I enumerate them in their order of importance, as each make of motorcycle has peculiar forms of breakdown for which it shows a partiality. First of all we will take that troublesome thing known as the short circuit. This causes either a partial or a very considerable leakage of the electrical current, traceable at times to worn or frayed insulation in the wiring, which causes the bare wire to come into contact with some metal portion of the motorcycle. Occasionally it so happens that this bare wire will come into contact only at certain times, and thus be a source of mystery to the novice until he finds the faulty spot. To obviate this difficulty, the best plan is to make a strong point of always renewing any old or worn wire and fitting new connections from time to time. In an old pattern machine the wiring and terminals will often be found to be very faulty, and, in a case like this, the rider should rewire the machine at the very first opportunity and fit up-to-date terminals on all the cables. When a short circuit caused in this manner occurs by the wayside, the simplest and quickest way to effect a repair is to wrap insulating tape round the frayed or worn portion, taking care to cover it up thoroughly. In the case of a broken terminal, wrap the bare wire round the binding post and bind securely with insulating tape, so as to secure good contact.

A Simple Method of Testing the Spark Plug.

Spark plugs are often the cause of misfires, particularly in the case of machines fitted with magneto ignition. In the battery type, the old pattern of spark plug was a constant sinner, but, fortunately for all of us, the modern type of spark plug has better material and sounder workmanship embodied in its construction. However, after a cursory examination, it is always a good plan to test the plug by taking it out and laying it on the cylinder head first of all. If no spark is obtained when contact is made or broken, there may be a possibility of a cracked porcelain or insulating core in the spark plug itself. The plug points also must be clean, accurately adjusted with the proper "gap" and the wires must be firm. I remember a case where a loose electrode baffled me for quite a long time, until at last I found out that the compression of the engine would force the loose plug-points together when the spark plug was in the cylinder, but when outside the jump was as regular as one could wish. Again, it must be taken to heart that when there is a minute leakage or crack in the insulation of a spark plug, often the test on the cylinder head shows the plug to be perfect, as the resistance of the air is not anywhere nearly so hard to overcome as the resistance of compressed gas in the cylinder. It must be borne in mind that the electrical current will invariably follow the path of least resistance. From this it can be seen that it is called upon to overcome considerable resistance when jumping between the electrodes or plug points. Thus a comparatively small break in the insulation of a spark plug will effectively prevent a good, regular spark between the electrodes.

Protection Against Wet Weather Is Advisable.

When riding in very wet weather, water trickling on to the porcelain or mica insulation of the spark plug is almost bound to result in a short-circuit at the plug, as water is a fine conductor of an electrical current, and the insulating properties of the plug core are of little use in a case such as this. I have found it to be an excellent plan to include in my kit of spare parts a rubber plug cover, made simply by cutting off a section of old inner tube, cementing the top together and cutting a small hole so as to accommodate the high-tension cable. This is a sure preventive of wet on the plug. Broken wires are another cause of misfiring, happily growing less frequent, as improvements in the manufacture of electrical wiring are being made every year. As I have said before, it is always the wisest policy by far to renew any old wiring. In the old days, before the popularity of rubber covered wiring, a rain-soaked old wire often gave unlimited trouble. A light-tension cable picking up

"Spick and Span."—From a Photo by T. F. Rick.

a steady trickle of water, if carried in an exposed position, may cause a stalling, but this is quite apparent and also rare. But mud, water and rain on the magneto at the contacts puts the whole caboodle out of commission. The manufacturers of magneto machines supply vulcanite, rubber and leather cases for the protection of the magneto, and a bad-weather rider naturally digs down in his jeans and secures one of these invaluable fitments. If he has not done so and the trouble is with him by the muddy roadside, the thing to do is to first dry the magneto. It has got to be done, even if one has to do the job with one's silken shirt tail. Then smear the terminals, etc., with vaseline—if no vaseline is at hand, make some goodly blobs of lubricating oil do for the time being. But let your experience teach you to buy a magneto cover at once.

Worn or Pitted Contact Points.

Now we come to our old trusted friends, worn or pitted contacts, either at the contact-breaker or in the jump spark at the coil vibrator. Contact points of any kind require constant adjustment. When they become pitted, a jeweler's or a manicure file will trim up the contacts nicely. The adjustment of a trembler blade should never be too stiff, as when this is the case the consumption of the current is abnormal. Again, when a stiff adjustment is used, the tendency for the contact points to pit becomes far greater, so that it is a thing to be avoided in any case. The correct adjustment is the one which has just sufficient tension to secure a moderately high-pitched buzz, and this is learned only by experience and practice. The same thing may be said of make and break systems. It is largely a matter of training the ear.

When the Battery Runs Down.

When the battery runs down, often one goes through the whole circus of trying to find out where the fault lies before stumbling on to the real cause of the stallment. The thing to remember is that the battery has "rested" when one starts up, and therefore its weakness may not be manifest until after some miles of running. Also it will be noticed that when the throttle is opened a misfire sets up when the batteries are in a weak condition. The reason for this is that while the spark is strong enough to fire a weak charge of gas, a heavier charge is beyond its powers. One of the surest ways of finding out whether the battery has run down is to note the behavior of the machine when one advances the spark. If the engine will not speed up, it is a fairly sure guess that the batteries are weak, in which event the only cure is a new set, and these should be procured as soon as possible, as procrastination in a matter like this generally means that one is pretty certain to get "hung up" somewhere in the wilds. One can perhaps coax the machine for a few miles by adjusting the spark-plug points closer together and resting the battery occasionally for short spells to pull its energies together. Even warming the battery has a slight reviving effect, but this should be adopted only as a final resource. I have actually made thirty miles under these conditions, with a machine fitted with an accumulator instead of a battery, the last four miles being coaxed out of the machine by soaking the accumulator in warm water. However, it is best to test the batteries at regular intervals to see how the reading stands. If this advice is followed further words on the question are unnecessary. If two sets of dry cells are used they can be made to give a few miles more of service by connecting up in series, carbon to zinc. If, on the other hand, twin storage cells are used, they can be connected up parallel, that is, carbon to carbon and zinc to zinc. A loose switch might produce misfiring, but the chances are that it is far more likely to cause complete stallage, as the contact will be so poor. On the other hand, regular attention should be given to the timer. It should be washed out with gasoline occasionally, and the contacts trimmed up and adjusted. One should be careful to see that dust and oil are kept away from the contacts.

Trouble in the Coil is Luckily Very Rare.

As for coil failure, luckily this very rarely happens, yet it must be borne in mind that the practice of passing a too powerful current through a coil intended only for a certain battery strength, is very likely to puncture the coil. The only thing to do is to send the coil to the makers for repairs, as one cannot tackle a job like this. Sometimes, however, a misfire may be caused by a broken connection to the condenser or due to the presence of dust or oil on the spring contacts. Water or even moisture in the "gizzards" of a coil will produce serious misfiring, and will also run down the battery quickly. What is known as a primary or single wound coil, as we are accustomed to use in low-tension make and break ignition, may be dried out slowly, but the only thing to do with the high-tension "crittur" is to send it to the makers to be fixed. We intend later to deal with magneto ignition troubles, but they may be touched on generally here. The contact points should be adjusted and trimmed where any wear is shown. The bearings of the armature, after long service, sometimes work loose and cause misfiring by making too short a contact. Dirt in the contact case will also produce trouble. The contact breaker should be washed out with gasoline occasionally, care being duly taken not to spoil the adjustment of the contacts while one is doing this. The contact interrupter spring sometimes loses its elasticity. It is uncommon to find loose contacts, but such a thing has been known, and these have to be re-riveted at the first opportunity.

When the Mixture Is Not Right.

Now we come to the bugaboo of the motorcyclist, trouble with the carbureter. I think it possible to classify these troubles in the order of their occurrence. First of all, the most common is undoubtedly misfiring, caused by too rich or too poor a mixture. Too rich a mixture, that is, a firing charge containing too great a proportion of gasoline to air relatively, first of all causes an excessive consumption of fuel, and can be traced by this tendency. Too rich a mixture is also one of the reasons for undue carbon deposits on the cylinder head and piston, this in turn causing overheating and premature ignition as well as pitted and clogged-up valves. A motorcycle will rarely run in a satisfactory manner for any length of time when too rich a mixture is employed; therefore some experimental work is necessary in adjusting the carbureter so as to give the *exact* proportions of gasoline and air to secure the best running conditions from the engine. A carbureter should be so adjusted that no more gas is fed to the cylinder than is sufficient for the engine to develop its full power. As I have pointed out, this can be ascertained only by experimental work on the rider's part, and with so many brands of carbureters on the market, it is next to impossible to deal with each one separately; therefore I give the above as a standard rule.

Symptoms Indicating a Weak Mixture.

A weak mixture will naturally lower the efficiency of the engine to a great degree, and misfiring will certainly result, more particularly at high speeds. Generally this is also accompanied by a popping in the carbureter, which must not be confounded with the popping caused by too weak an automatic inlet-valve spring. When the mixture is too weak, the rider should adjust the needle valve so as to give more gasoline, or if the fault is traced to too great a supply of air, adjust the auxiliary air-valve so as to admit less air to the carbureter. The fouling of the spraying jet comes next in order of importance. The opening of the jet is very small, and if a small bit of grit, road dust or gasoline sediment lodges in this opening, misfiring and often failure to start is the result, although sometimes the machine will start readily enough, but as the engine is speeded up, misfiring will set in. The best thing to do in a case like this is to take down the carbureter and clean it out thoroughly. Sometimes, when the machine will not start because of a bunged-up jet, a few drops of gasoline through the petcock in the cylinder head will start the engine, and the suction will clear the jet for the time being.

Carbureter Float in an Erratic Condition.

Other carbureter troubles include leaky floats or a gasoline-clogged cork float. When the float is of metal the cheapest thing in the end is to buy a new float; if of cork, it should be thoroughly dried out and given a coat of shellac, needless to say after the drying process. The reason that a punctured or gasoline-logged float causes misfiring is because of its uncertain and erratic action. If one wishes to repair the punctured float, it is possible to do the job, though great care and a "light touch" are requisites. First of all, any gasoline inside the float has to be coaxed out and the puncture found. I think that the puncture is best discovered by looking carefully over the surface, first of all where the plunger or "tickler" strikes the float. Some people plunge the float in water and watch for a minute bubble, but there is a chance of water getting into the float as well as gasoline, and I consider one evil bad enough. To get the gasoline out of the float, first mark the spot where the puncture is and dip the opposite side in boiling water. This will evaporate the drop of gasoline, due care being taken to dry the float thoroughly. Then the spot around the puncture must be cleaned well and a tiny drop of solder completes the repair. One has to be careful to use a *very* small piece of solder, as otherwise the balance of the float will be disturbed. Sometimes, although fortunately this is rare, we hear of a bent float spindle. This is usually traced to a too vigorous "tickling" of the plunger. The same thing sometimes causes the float spindle to be jammed upon its seat. By taking down the carbureter and lifting out the float, one can easily detect any fault in the float spindle. The job of straightening out this spindle is very delicate, and one requires considerable care. The metal should be placed on a block of hardwood, another block interposed, and the spindle gently tapped with a hammer.

Obstructions Which May be Causes of Misfiring.

I have pointed out elsewhere that a leak in the intake pipe will upset the mixture and cause misfiring. Again it can be clearly seen that any obstruction in the gasoline feed pipe, tank outlet or carbureter inlet will cause serious misfiring, particularly at high speeds, because the flow of gasoline is insufficient to meet the requirements of the engine. I have also come across a case where the cylinder head was not compression-tight, and this spoiled the mixture enough to cause bad misfiring. The motorcycle was being used in a very flat district, and the compression of the engine, under ordinary circumstances, was unduly high, so that the serious extent of the leakage was not suspected until the misfiring had set in and given the show away. Therefore all unions and bolts should be tested for slackness from time to time.

When the Valves Do Not Work Perfectly.

A weak or broken inlet valve spring may show its existence by starting up a fit of intermittent misfiring. It may be added that a bent or broken inlet valve stem will do the same, not to mention badly carbonized valves which have got pitted and scaled beyond good working condition. If the valve spring, for instance, has lost its original "temper" and is not working as it should, the tension of the weakened spring will not be sufficient to hold the valve properly on its seat, and the gas will partially escape and a misfire set in. A good tip for the injudicious rider who does not happen to have a spare valve spring in his tool-kit, is to insert three or four washers to increase the tension of the spring. This will serve at any rate to get the machine home. It may be mentioned at the same time that a broken valve spring may be temporarily repaired by the insertion of a washer between the broken sections. One can straighten a bent valve stem by taking out the valve and laying it on a piece of hard wood, interposing another block and smiting with a hammer gently, trying the valve from time to time in its guide until she slides in easily. Automatic inlet valves on old-type machines sometimes give trouble. The spring has to be of a certain tension for the best all-round running. If the tension slackens and backfiring into the carbureter occurs, a washer or two may be used for a temporary repair until a new spring of the correct tension can be obtained. If the valve key of an automatic falls out and is lost, a temporary repair may be effected with a loop of wire or a small bent nail. As all of these contingencies may cause misfiring to a greater or lesser degree, I have enumerated them as possibilities. The old adage, "one can never be too sure," applies to motorcycling as well as other matters.

PLAN CHICAGO-INDIANAPOLIS RUN.

THERE is talk among the members of the Chicago Club of holding a run to Indianapolis, to visit members of the Indiana Club. The boys who attended the F. A. M. meet last year enjoyed themselves so well that they are planning to make the trip the latter part of May, or leave Chicago July 2 and spend July 3 at Indianapolis, returning to Chicago July 4. The distance is about 225 miles. The first club run will be held Sunday, April 3, and will be to Cedar Lake, Ind., and return, a distance of fifty miles each way.

A PHOTO of a small part of the membership of the Los Angeles Club, taken at Pomona during their opening club run of the season. Eighty-two machines left the clubhouse at Twenty-second and San Pedro streets, but more joined them on the way, and something over 100 made the run. For curiosity our correspondent counted the number of machines leaving the clubhouse and found: Excelsiors, 21; Indians, 19; Thors, 10; Harley-Davidsons, 5; Reading Standards, 5; Wagners, 4; Marsh-Metz, 4; N. S. U., 4; Minneapolis, 2; Peugeot, 2; Yale, 2; Greyhound, 2; Torpedo, 1; Pierce, 1. Several autos made the run and one side car. Eighteen ladies rode tandems, as did five men.

A MIDSUMMER TRIP THROUGH JERSEY

By CLEMENT W. LOWE.

WITH the rising of one midsummer's sun I was well on my way to the ocean resorts of northern New Jersey. Turning into Hulmerville pike from Bristol road, I gradually opened the throttle, turned on the oil several notches and settled down to that satisfied feeling which good roads and speed give to one. Driving over a new laid road in perfect condition, mile after mile, with the soft summer breeze become a little hurricane, how shall I describe my sensations? None but the motorcyclist feels the thrill of speed in its full measure. The steady throb of the motor and rush of air are like the sight of game to the hunter. At last Hulmerville drew near; crossing the bridge over the picturesque Neshaminy, I found myself at the intersection of several roads. After inquiring the way of several roadhouse loungers, I was soon on the right road. This led up quite a hill, then over a few more smaller ones, and over level country with fairly good roads the balance of the distance to Trenton, the State Capital. From there the way to Hightstown is superb. Here one is apt to blunder at the fork of the road, wishing rather to keep straight on than to turn to the left along the railroad. From this town to Freehold the going was pretty bad, owing to numerous speeding autos tearing up the gravel, of which the roads in some places are composed, making it necessary to ride on the footpaths.

At Freehold I took the fork to New York instead of the right hand one to Long Branch. Here is where I should have used my road map, for before learning my mistake I was seven miles out of my way. So, taking the first good road towards the coast, I opened up once more, when, much to my dismay, after covering from five to six miles, I found myself at the end of good roads. After riding quite a distance through sand, ruts and high grass, I came to a small town where the going began to improve. Encountering many turns, small hills, hollows, more sand and roads in the process of repair, I at last reached the Long Branch turnpike. Just outside Long Branch this road was all that could be dsired.

From Long Branch I continued down the coast along the Ocean boulevard, through West End and Elberon, noted for its many magnificent summer residences and "motor-cops." Then Deal Beach, Asbury Park, and at last Avon, where I remained during the afternoon and night.

On the following morning I took in Belmar, "chugging" along the picturesque Shark River over a capital road. Thence down to Spring Lake, Sea Girt, etc. Here I spent several hours looking over the encampment and watching target practice. Owing to the short grass and even lay of the ground, I was able to ride at slow pace all over the encampment, regardless of paths or wagon tracks. Towards 11 o'clock I returned to Bradley Beach for lunch and a swim in the ocean, previous to my afternoon trip.

That afternoon, accompanied by a friend on an M. M. Special, we took in the views along the coast, embracing Monmouth Beach, Sea Bright and Navesink Beach. The scenery here is worth the whole trip. At Sea Bright the road runs along a narrow strip of land washed by the waters of the Atlantic and the Shrewsbury River. On nearing Navesink Beach, the Atlantic Highlands loomed up, quite large and precipitous.

One first sees the Highlands as low-lying, forest-clad hills, increasing in height as they near the sea. On drawing nearer, the Navesink River, fully a mile wide, appears in view, dotted over with all manner of gaily painted launches, houseboats bedecked with many flags, and graceful yachts. To the right of the road, across the railroad tracks, lie the deep blue waters of the ocean, with an occasional ocean steamer.

Resuming our journey, we crossed the iron drawbridge and rode up the principal street. I say up because of quite an abrupt hill ending at the car lines. Turning to the left, we followed a private road up to the crest of the Highlands. This road was quite a climb, through an almost virgin forest, then down a steep decline. Here I switched off the spark, allowing the engine to work against compression, with the throttle wide open. This allowed the motor to cool thoroughly after its strenuous toil up the Highlands. Reaching the bottom, we finally came to the long bridge, fully one-half mile long. This took us to Oceanic, thence to Seabright and down the coast to our respective stopping places.

Next day, bright and early, I was off on my return trip to Mt. Airy, Philadelphia. The journey was uneventful as far as Trenton, for I did not adjust anything but the contact screw on the commutator, simply in order to obtain more speed. After crossing the Delaware at Trenton and speeding for several miles, the motor began to miss and act very strangely. It dawned upon me that in my haste I had neglected to fill up the machine's tank as well as myself. No gasoline! and a mile from the nearest farm house. I started the machine once more and it ran spasmodically for several yards, then, after a few weak "chugs," died. Well, I pushed my mount for many a weary yard until a new supply of gasoline partly filled its tank. At the next town I filled up the tank and reached home without further trouble, not even having had to pump my tires once while on the whole trip, I having covered in all a trifle over three hundred miles.

Picturesque Country in Jersey.

The Atlantic Highlands, Overlooking the Beach.

Clement W. Lowe.

Along the Navesink River.

PROSPEROUS TRADE CONDITIONS TO BE FOUND IN INDIANAPOLIS THIS SPRING.

APPROXIMATELY half of their 1910 allotments have been disposed of by Indianapolis agencies, and the indications are that the season will be a record-breaker. Indianapolis is a motorcycle point of importance, as from that city the distribution of machines for the entire State is made. Sales made by dealers of the Hoosier capital last season reached about 600, while this season the number disposed of will probably be twice that number. The utilitarian qualities of the motorcycle for almost any line of business are among the principal talking points employed by Indiana salesmen. It is probable that more motorcycles are used for commercial purposes in Indiana, in proportion to population, than in any other State in the Union.

In Indianapolis, for instance, every public service corporation uses two or more machines for its collectors or trouble hunters. Among these are the Indianapolis Gas Company, the Citizens' Gas Company, Indianapolis Water Company, Indianapolis Light and Heat Company, Merchants' Heat and Light Company, Indianapolis Telephone Company, and the Central Union Telephone Company. Several special delivery carriers of the postoffice are also mounted on motorcycles, which the carriers furnish at their own expense. Estimators for electrical contractors and lumber concerns are also employing motorcycles. A few physicians have them, although not as many in proportion as the doctors in the smaller towns and rural districts. There are few lines of business in Indiana not using motorcycles for some purpose or other. The newspapers have found them exceedingly practical for use in soliciting subscriptions and making collections.

The Indianapolis police department has three machines which are used for serving calls for special meetings of the City Council and subpoenas from police court in certain instances, for delivering bulletins and special orders to police sub-stations and for running down and catching violators of the speed laws. The motorcycle officers do not ride in uniform.

Gus Habich, 142 East Washington street, has the Indiana agency for the Thor, and has established agencies in about half of the counties of the State. John Merz has charge of the sales department, and John Sink, well known in racing circles, superintends the large repair department. The Indian is the agency held by the G. H. Westing Company, 219 Massachusetts avenue, the company having sold Indians for several seasons. A full line of parts is carried and a separate repair shop for motorcycles is conducted in East Ohio street. The company has taken a lease on a two-story brick building under construction in North Delaware street, to which it will move later in the year, combining its sales and repair departments.

Another large agency is that of the George C. Detch Wheel Company, 229 Massachusetts avenue, which has the Wagner and Reading Standard. A full line of parts and a large line of accessories are also carried, while a complete repair shop is also maintained. Fred I. Willis, president of the Federation of American Motorcyclists, is vice-president and general manager of the Hersey-Willis Company, which has the Indiana agency for the Excelsior. The company also has several motor car agencies. The Thompson-Holliday Supply Company, 444 Massachusetts avenue, has the Indiana agencies for the Armac and Greyhound. The company is a pioneer in the Indianapolis trade, and does a large business. A repair shop is also conducted and accessories are sold.

C. Koehring & Bro., 878-882 Virginia avenue, have the only agency on the south side of the city, representing the two-speed Minneapolis, a machine which has become quite popular in Indiana during the last two seasons. The company also has a repair shop and sells parts and accessories.

The Fisher Automobile Company, which has seven motor car agencies, also sells the Curtiss, with which it has met with considerable success. The company is located at Capitol and Vermont avenues, where it is preparing to build a $1,000,000 motor row, to include five new buildings covering two squares of ground.

One of the pioneers in the Indianapolis field is John Hohl, who is located in the basement of the Indiana Trust Building. He has the agency for the Yale and also has a large repair shop. The Motorcycle Messenger Service, which conducts a general messenger service business, also has the agency for the Merkel-Light in this and a few adjoining counties. The company is located at 148 Virginia avenue. Harry L. Dipple, who is located in the rear of 338 Massachusetts avenue, has the agency for the Harley-Davidson, and is also interested in a new machine which is being built in his shop, and may be placed on the market. He also has a complete repair shop.

THE San Francisco Club is making arrangements for a race meet in the near future, one of the main events to be a match between W. G. Collins, on a 7 Indian, and H. Kohl, on a 7 Kohl with Peugeot engine. The distance is to be 150 miles, and each rider will be required to make any repairs necessary to his machine while in the race. Both are expert riders and repair men and this should prove a very interesting and hard-fought contest.

Dr. I. W. Letcher, captain of the club, has offered three valuable prizes, first, a 21-jewel gold watch; second, a gold watch; third, a handsome sofa pillow (made up from club ribbons). These prizes, with the regular gold and silver medals, are to be given for the best attendance and highest scores on club runs during the coming season. This should prove a drawing card and bring a number of new riders out into the open country.

At the last meeting of the club it was decided to allow members of the fair sex to join. Their dues were made the nominal sum of 25 cents per month. During the past year riding tandem attachments and side cars has become quite popular.

CHAIRMAN THORNLEY GIVES SOUND ADVICE TO DENVERITES

WITH a view of placing the racing situation properly before many who do not seem to quite comprehend just what it means to the F. A. M., and, more important still, what the Federation means to racing, we can do no better than reproduce the following letter, directed by Dr. J. P. Thornley, chairman of the F. A. M. Competition Committee, to those Denver riders who have competed in unsanctioned meets:

"It has come to our notice that race meets are being held in your town without the sanction of the Federation of American Motorcyclists. As this matter is very poorly understood, we feel that, in justice to you, it should be thoroughly explained.

"The Federation is a national organization for the improvement of conditions governing motorcycle racing and motorcycle riding and touring. It is absolutely necessary for the protection of motorcyclists that they organize and try to prevent the passage of unjust and burdensome laws. In the same way, if we are organized, we can do a great deal towards improving road conditons. If we do not, the roads will remain just as they are, or will be made comfortable or passable for other classes of vehicles whose owners are organized, and we shall be left more or less in an uncomfortable position.

"There is every possible advantage in the organization of motorcyclists, and not one single disadvantage that we can possibly think of. The same thing holds good of racing. If races are properly organized and supervised, tracks will be built which are reasonably safe, officials will be appointed who are fair and square, prizes will be delivered promptly, and riders will get justice and safety. All these advantages are guaranteed by riding under sanction issued by a recognized body. You gain none of them and help to break down the safeguards which we attempt to put up for your benefit, by riding at meets which are neither sanctioned nor supervised by F. A. M. officials.

"There is a serious disadvantage, moreover, in riding at unsanctioned meets, aside from the lack of safety and the uncertainty of receiving prizes promptly. If a man persistently rides at unsanctioned meets, and will not join the organization, he shows by his defiance and lack of interest that he is not worthy of our consideration. It means that a man who thus deports himself may be barred from riding anywhere in the country under our sanction, from riding at meets which are governed by our rules, and with the guarantee which our prestige gives. It means that if a man goes from Denver to Los Angeles and tries to ride on the Coliseum track there, he will be barred off. If he be a good rider and seeks for new worlds to conquer, and tries to ride at race meets held under the supervision of this organization, he will also be barred. He will be barred from championship races and many other advantages. This is not done as a punishment, or to discriminate against riders, or to sandbag them into the organization. It simply means that we only allow men to ride under our sanction who are fair and square and anxious to help the motorcycle game and companion riders. This may not mean much to local riders at the present time, but it will mean a great deal later on, and it does mean at the present time that a local rider is practically confined to his town in his endeavors, provided he rides at unsanctioned meets in that town.

"Hoping that the riders will realize that this is a fair and dispassionate statement of the situation, and that Denver will come into line strong, and help in a manly Western fashion, I am Very sincerely yours,

"J. P. Thornley,

THE NEW F. A. M. SECRETARY.

CHARLES F. BALL, of Indianapolis, now secretary of the F. A. M., succeeding LeRoy Cook, of Boston, who resigned recently, although but twenty-five years old, is one of the most active riders and Federationists in the Middle West. His home is at Rockville, Ind., but he is employed as circulation manager of an automobile publication in Indianapolis. He uses a motorcycle in traveling over Indiana and adjacent States in connection with his work. Shortly after the Indiana Club was organized, Mr. Ball became one of its most enthusiastic members. He has also been secretary of the western division of the F. A. M., a position to which he was elected unanimously. He expects to resign from this place as soon as a successor can be selected. Mr. Ball's Indianapolis address is 423 Saks Building.

A FEW MORE LOCAL COMMISSIONERS.

THE following appointments of local commissioners have recently been made by Harold Fletcher, New York commissioner: A. E. Weed, Cortland; G. H. Ellsworth, Rochester; Amos Shirley, 935 Eighth avenue, New York; W. L. Brown, 1697 Broadway, New York; H. A. Gliesman, 782 Eighth avenue, New York. W. R. Schoonmaker, New Jersey commissioner, has named Geo. B. Gifford, Jr., 68 Danforth avenue, Jersey City, while E. M. Estabrook, Maine commissioner, announces the following selections: Harold Moore, Portland; Arthur Boober, Milo; Geo. A. Allen, Gardiner, and E. C. Teague, Hebron.

* *

LOS ANGELES GETS 5-MILE CHAMPIONSHIP.

THE Los Angeles Motorcycle Club has been awarded the five-mile national championship for the year 1910. This has been done thus early for two reasons: First, because, in the opinion of Chairman Thornley, the Pacific Coast is entitled to consideration on account of the amount of racing done there; second, their season is almost entirely confined to the early part of the year, so that if the award of a championship were put off until after the F. A. M. meet, there would be a chance of its not being run off during the year to which it is assigned.

* *

ANNOUNCEMENT is made of the following F. A. M. State commissioners appointed by Charles A. Wyatt, vice-president of the Western District: Minnesota, R. J. Bedson, St. Paul; North Dakota, John Malm, of Kuhn; South Dakota, P. N. Bushnell, of Aberdeen; Wyoming, C. E. Williams, Cheyenne.

* *

NEW YORK Commissioner Fletcher, through Poughkeepsie Commissioner Price, announces the affiliation of the Poughkeepsie Club.

TO SEE THE WORLD MOTORCYCLING.

LEROY HENDRICKS, of Sterling, Ill., is one of the latest to announce his aspirations to become a successful "globe trotter." He has just purchased a 1910 5 h. twin Indian, and proposes to do a great deal of touring during the next few years, not only in the United States, but in foreign countries as well, as he is convinced that the ideal method of cheap transportation is a la motorcycle. He has fitted a tandem attachment to his mount, and until the latter part of August he will be accompanied by Elmer Evans.

Hendricks is a sign painter by trade, and he intends to pay his expenses while en route by following this vocation. He hopes by the time he has reached the Pacific Coast that he will have laid by a sufficient sum to enable him to continue his journey over the ocean to Honolulu. That is as far as his plans have been laid for the present, but he is said to be a determined sort of fellow and none of his friends would be surprised if he ultimately succeeded in completely encircling this mundane sphere.

IN TRAINING FOR RACE MEETS.

AT the Indianapolis Y. M. C. A., Erwin G. Baker is training these days to reduce his weight and steady his nerve. Baker is very rationally of the opinion that a motorcycle racer should be as carefully and systematically trained as almost any other athlete, even though track work on a motorcycle is not strictly an athletic sport.

* * *

LOGANSPORT (Ind.), is to have a motor show, parade and competitive events the 7th, 8th and 9th of this month. There will be a hill climb Friday and an obstacle race Saturday.

* * *

DAVID DESSAU, of 628 West 114th street, has been appointed as one of the official F. A. M. referees for New York and vicinity.

* * *

THE initial run of the Buffalo Club will be held Sunday, April 3, to Lockport. The event will be in charge of Captain C. A. Johndahl and Lieutenant C. Logan.

* * *

Have you contributed your new F. A. M. member to the organization? Remember, the objective is 10,000 before the close of the year, and memberships do not grow without some vigorous cultivation.

* * *

Here's to the Metropolitan Association of Motorcycle Clubs. Long may it live and prosper.

* * *

Now for another healthy crop of more or less determined globe-girdlers.

A RATHER ODD NEWS PARAGRAPH.

UNDER the caption "Touring Motorcycle," the *Minneapolis Tribune* recently stated "that the most important requirement of a motorcycle used for long tours is a comfortable saddle." Immediately following this wonderfully wise observation, and in the same paragraph, this appears: "One of the most desirable beverages now on the market is golden grain belt beer." We don't pretend to know anything about it, but several riders whom we have quizzed declare that there is an intimate relation existing between these two apparently unconnected sentences.

BUILT A MOTORCYCLE IN 1868.

IT was away back in 1868 that a New Englander, W. W. Austin, of Winthrope, Mass., attached a coal-burning steam engine to his bicycle or, as it was then called, velocipede, and thus produced the first American-built motorcycle. Previous to that date, in 1860, a Frenchman named Lenoir had more or less successfully fitted a gas engine to a "push-wheel."

SPRINGFIELD (O.) CLUB AFFILIATED.

E. M. ESTABROOK, Chairman of the F. A. M. Membership Committee, is in receipt of affiliation papers covering sixteen members of the recently organized Springfield Club of Springfield, Ohio. The officers of this organization hope to double its present membership within sixty days and they are planning to take an active part in the motorcycle affairs of their locality.

PASADENA CLUB TO HOLD A RELIABILITY.

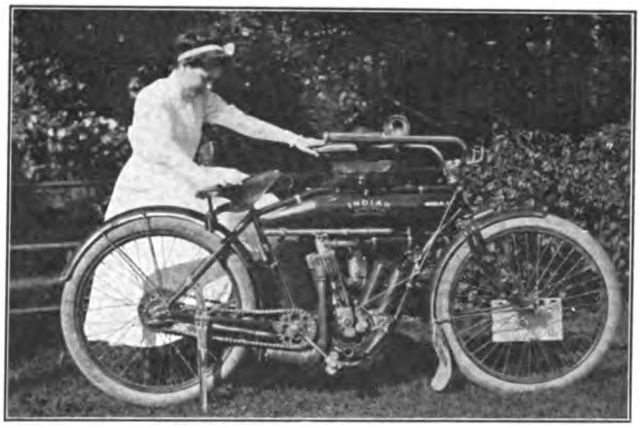
A MASQUERADE ball will be conducted by the Pasadena Club tonight. Its first big outdoor event will be a reliability run on the course between Pasadena and Ventura. This will take place on the 24th.

BUFFALO CLUB SMOKER NEXT WEEK.

THE annual smoker of the Buffalo Club will be held at German-American Hall, Friday evening, April 8. There will be a number of good vaudeville features and other amusing stunts. Otto Kelch is chairman of the committee arranging the affair.

RACING PROFITS FOR GOOD ROADS.

A SERIES of races will be held under the auspices of the Wichita (Kans.) Club May 19. The proceeds will be applied for the benefit of the good roads movements.



A FAIR Keystone State denizen, one of thousands who are awaiting the day when the motorcycle will be adapted to feminine requirements. This is typically illustrative of a condition which actually prevails—the desire to ride being throttled by mechanical difficulties which the average member of the weaker sex hesitates to attempt to overcome.

WITH THE CLUBS

JERSEY CLUB'S ENDURANCE RUN.

AMONG the Eastern road classics of the season will be the third annual endurance run under the auspices of the New Jersey Club, May 29 and 30, as already announced in these columns. The rules governing this contest have just been published, the principal regulations following:

Gold medals will be awarded for scores of 1,000 points. Silver medals for 980 points and over. Bronze medals for 950 points and over. Each competitor will be credited with 1,000 points at the start. For failure to adhere to schedule the following penalties will be imposed: One point for each minute late at any control; two points for each minute in advance of schedule; thirty minutes in advance will entail immediate disqualification.

There will be a hill climbing test at Cushmall Hill. At this hill (near Singac) riders will be required to register, but no time will be taken, although consistent running time will count in case of ties for special cups, etc. When nearing the foot of the grade selected for the hill-climbing test, competitors shall dismount and, in the order of their arrival, undergo the hill-climbing test by making the ascent of the hill without regard to time, but under the observation of officials. But one trial will be permitted, save in the event that a competitor may be blocked by traffic on the road. Penalties will be imposed at the hill as follows: Single-cylinder machines, twenty-five points for dismounting; ten points for making the ascent by pedaling. Multi-cylinder machines, fifty points for dismounting; twenty-five points for pedaling. Two-speed gear machines in their respective cylinder classes will receive double the above penalties. The average speed first day will be seventeen miles per hour; second day, fifteen miles per hour to Monroe and seventeen miles per hour from there to Newark. This is an F. A. M. sanctioned run and all entrants must be registered by the Competition Committee. Send your name and description of your mount to J. P. Thornley, Acting Chairman F. A. M. Competition Committee, Hotel Ansonia, New York. If you are an F. A. M. member send your number to him; if not, include $2 for membership fee. The entrance fee is $2.50, and entry blanks may be had of R. B. Whitehead, 18 New street, Newark, N. J.

* *

ROCHESTER CLUB COMMITTEES.

AT a recent meeting of the Rochester Club several new committees were named, as follows: House committee, W. E. Goudie, C. P. Strogen, E. K. Van Almkirk and George Brey; publicity committee, Dr. Ira Bier, George J. Wagner, Will Troy and Clarence Maurer; racing committee, William Duprey, W. A. Wilson, Fred Roy and Arthur Strobel.

President George H. Ellsworth received notice that he has been appointed local commissioner for the F. A. M. One of the club's events will be the meet July 4. Crittenden Park has been engaged, and the committee is working hard to induce riders of note to participate in the races.

* *

INDIAN riders in Newark, O., have organized. At a meeting at George Streams' store recently, they formally banded together, electing these officers: President, "Big Chief" H. H. Snauck; secretary and treasurer, "Scribe" Geo. T. Stream; pilot, "Scout" Wm. Young; "medicine men" (repairers), Charles Marsh and Perry Beadle.

BOSTON'S VETERAN MOTORCYCLIST.

ONE of the most interesting Boston riders is J. P. Turner, aged 66, an active motorcyclist and a member of the executive committee of the Boston Club. Mr. Turner has been a rider of velocipedes, bicycles and motorcycles for more than half a century. He was enthusiastic as a boy, and he rode his first race in 1860 on a mount consisting of two large wooden wheels with iron tires, carrying a frame and above this a saddle, the propulsion being by cranks attached to the axle of the forward wheel on which were wooden spools serving as pedals. The workmanship was exceedingly crude and it would be considered punishment for one to ride such a machine now, but with the enthusiasm of a boy he worked hard and won. The time for the mile was 10:40, which was considered excellent. After that came more races and then the high machine, next the safety, and finally the motorcycle. When a young man Mr. Turner was noted as a rider, and he has many accomplishments on the road and track to his credit. He engaged in manufacturing and being interested in road vehicles, these received his attention. With him bicycles were specialized and as early as 1874 he built the "Emperor" machine, which is credited with being the first bicycle to have ball bearings. Mr. Turner considers the motorcycle ideal in that it affords opportunity for those who do not have the inclination or strength to use a bicycle to pass a great deal of time in the open air and enjoy a wider range of travel and observation than would be possible with any other form of locomotion.

* *

A BIG MEET UP-STATE.

A TWENTY-FIVE-MILE pursuit race is promised as the feature of the Decoration Day meet under the auspices of the Poughkeepsie (N. Y.) Club. Prizes to the value of $250 will be awarded.

* *

THE Pasadena (Cal.) Club has arranged for its first reliability run to Ventura, to be held on April 24. Details of the trip are in the hands of a committee consisting of C. H. Basore, chairman; Frank Rebo, Ed Loudenclos, Joe Margadant, Guy Henry, J. H. Bradway and John Breiner, Jr.

* *

SAN BERNARDINO is the place and Sunday, April 3 the date of the race meet to be held under the auspices of the Riverside Club.

TO INCORPORATE INDIANA CLUB.

THE Indiana Club is preparing to reorganize under another name and incorporate under the State laws for the purpose of selling stock and building a clubhouse. It is probable that the new name will be the Hoosier Motorcycle Club, the authorized capitalization of which will be $5,000.

About three years ago the club was organized with a charter membership of fifteen, comprising practically all of the riders in Indianapolis. A small room at 115 West Maryland street, over a garage, was rented for club headquarters. At the present time the membership is about 135, and the organization has for a clubhouse a modern two-story dwelling at 444 West Vermont street, equipped with reading and billiard rooms, and other conveniences. At this time most of the members live in Indianapolis, but an active campaign is to be started to gain recruits throughout the State. It is planned to build an attractive clubhouse in or near the city. The first 100 shares of stock will be sold at $10 each, and after that it is the intention to charge $15 a share.

The officers, elected in February, are Harry Graff, president; John Merz, vice-president; Lee Chapman, secretary, and William Powers, treasurer. When the club is reorganized and incorporated, these officers will be named as directors, and will assume the same official positions in the corporation they now hold in the club. A Decoration Day road race is being planned by the club. The club will also promote a number of track meets this season.

* *

AT a recent meeting of the North Shore Motorcycling Club, at its temporary quarters, 732 Sheridan road, Chicago, these officers were elected: L. J. Leonard, president; F. L. Boud, vice-president; P. O. Dittmar, secretary; Jas. T. Paisley, treasurer; A. W. Baumann, captain; L. Galitski, first lieutenant, and B. Blankenheim, second lieutenant. A membership committee was also selected, of which Mr. C. Blankenheim was elected chairman. An emblem was finally decided upon, as the official seal of the club, and pins are now being made from it. They are to be rolled gold, guaranteed for twenty years, and will cost two dollars. The club, though just organized, has grown wonderfully fast, having already a membership of over fifty, which is expected to treble itself within a month or two.

* *

ANOTHER CLUB IN JERSEY.

ALBERT BOLLER is president, Gottfried Hess, corresponding secretary, and E. Boller, road captain of the Hudson County Club, recently organized with headquarters at 124 Boulevard, corner Bloom street, Union Hill, N. J. Though its charter membership is only twelve, the club's prospects are excellent, as the number of riders in that vicinity is growing very rapidly.

A PART of the membership of the Yale Motorcycle Club of Minneapolis, organized last year. The photo was taken after the riders had returned from an all-day trip. At the extreme right is A. R. Horn, the Yale agent in Minneapolis.

* *

CONCOURSE CLUB MEMBERS FRATERNIZE.

AN informal social gathering of members of the Concourse Club was held at the clubhouse, Jerome avenue and 165th street, on the evening of March 17. There was singing and other entertainment furnished by members and one of the guests. Refreshments were served, and all agreed that the affair was a jolly good one. It is the intention of the club to hold these little "blowouts" from time to time, so as to bring the members together in a social way, and thus promote good fellowship among them.

Tickets for the annual dinner of the Concourse Club on April 5, 1910, at the Hotel Gerard, are now out for distribution, the price being $1.50. As this affair is open to all the clubs in the Metropolitan Association, it is hoped that many of the members of these clubs will be present. Tickets may be obtained from any member of the Concourse Club, or at its club headquarters, or from the secretary of any club composing the Metropolitan Association.

* *

A NUMBER of motor enthusiasts met at Korb & Stewart's at First avenue and Pennsylvania street, Evansville, Ind., a few nights ago, and organized the Evansville Club. The following officers were elected: Mike Schaeffer, president; Fred Kieckle, vice-president; Arthur Fellwock, secretary and treasurer; Edward Loutz, captain; Herb White, first lieutenant.

* *

JUST a small percentage of the members of the Savannah (Ga.) Club. Among those pictured are President L. D. Wylly (No. 1), Captain Earl J. McCone (No. 2), and W. A. Williams (No. 3), the local Excelsior agent. This is one of the real live Southern clubs.

THREE RACE MEETS AT DENVER.

THE racing season opened in Denver on March 13, when a crowd of at least 500 people were present. The first event was a one mile open, which was won by Slivers Boyd on a 5 Indian. In the five-mile open, Armstrong (Indian) won in 8:07, with Boyd (Indian) second; Allbright (Excelsior), third. The 10-mile race for stock machines was won by Boyd (Indian) in 16:11, by four laps; Good (Excelsior) was second. Boyd and Armstrong wound up the program with a match race, which was closely contested, with Boyd finishing in the lead. The track was in poor condition, and the banking on a sharp curve was defective, which accounts for the comparatively slow times made.

A new feature was introduced the Sunday before last in a three-cornered pursuit race in which Armstrong, Cassidy and Albright were the starters. Cassidy's machine balked early in the game, but the other two riders continued for ten miles before Armstrong finally succeeded in overtaking Albright. The summary:

Five-mile, single stock—First, Slivers Boyd; second, Johnny Albright; third, Dan Cassidy. Clint Gillfillen, Earl Armstrong and C. A. Beatty also rode.

Five miles, open stock—First, Earl Armstrong; second, Cassidy; third, Boyd; fourth, Johnny Albright. Time, 7:08.

Three-cornered pursuit—First, Armstrong; second, Johnny Albright; third, Dan Cassidy.

Five miles, open—First, Slivers Boyd; second, Earl Armstrong; third, Johnny Albright. Joe Walters also rode. Time, 6:57.

On Sunday, March 27, Earl Armstrong and Glen Boyd, riding Indian machines, divided the honors, but were given a close run by Johnny Albright on an Excelsior.

Ten mile match—Earl Armstrong first, Johnny Albright second. Time, 14m.

Five mile open stock—Armstrong first, Boyd second, Albright third.

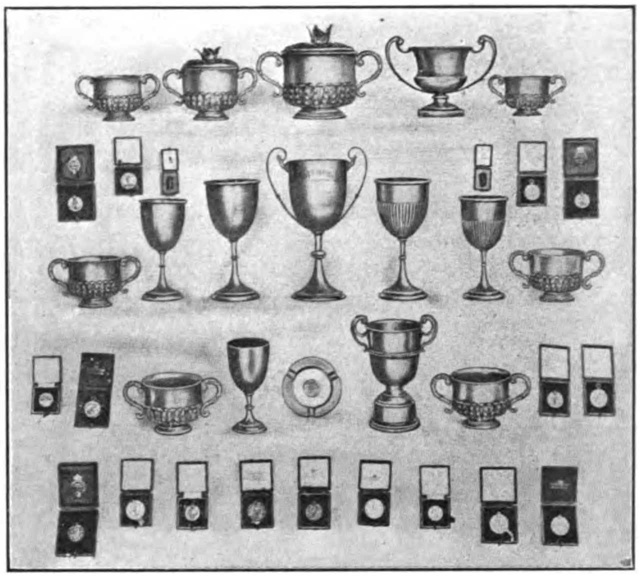
Five miles, for racers—Boyd first, Armstrong second, Albright third.

* * *

THE Excelsior Supply Company of Chicago has leased the Kelly-Maus building at the foot of Randolph street, and is preparing to remove thereto.

FERD B. PHILLIPS, of New Orleans, sends us this picture of his son on an Indian. The senior Phillips declares that the lad is just as much interested in MOTORCYCLE ILLUSTRATED as is his father. That is another way of predicting that the boy will ride as soon as his legs are long enough to touch the pedals.

WON ON INDIANS IN ENGLAND DURING 1909.



A NEW MACHINE IN KOKOMO.

NORMAN GILMAN is the designer of the new lightweight which recently made its appearance on the streets of Kokomo, Ind., the first product of the Kokomo Motorcycle Company.

Of the single cylinder type, the engine is rated at 3½ h., all valves being mechanically actuated and all moving parts working in an oil bath. Ignition is furnished by a Herz magneto driven by enclosed gears. A Planhard carbureter is used.

The drive is through a rubber V Shamrock-Gloria belt. The front fork is of the leaf suspension type, and shock absorbers are fitted. The control is by double grips through Bowden wires. It is said that the engine can be released from the frame in two minutes.

* * *

ON Sunday, April 17, the Linden Club of Brooklyn, will hold its annual spring run of 150 miles over the finest roads of Long Island. The route is mapped out for the first fifty miles over the North Shore roads, thence across the island to South Haven and return to the starting point, the club's headquarters, 1604 Bushwick avenue, by way of the well-known Merrick road. Handsome solid silver medals of original design will be given to all entrants finishing within the time limitation. For entry blanks, etc., address Capt. Elmer Finley, 1604 Bushwick avenue, Brooklyn, N. Y.

* * *

THE Baltimore (Md.) Club has affiliated several new members, thus bringing their F. A. M. membership close up to fifty. Mr. R. E. Hegner, of McGill, Nev., is forming a local motorcycle club with the intention of making it an F. A. M. organization. Mr. R. G. Spaulding (Box 66), Boise, Idaho, has started the nucleus of a local club, and expects to organize a good sized F. A. M. club in the near future.

* * *

AT the recent election of the Riverside Club, E. J. Knoll, who is sixty years of age and enjoys the distinction of having ridden the first motorcycle ever brought to Riverside, was elected president for the third consecutive time. T. F. Wilson was chosen as vice-president; Luther Davis, captain; Lester Bamberger, secretary; Robert Curtis, lieutenant.

* * *

THE Illinois Valley Club has arranged for an open F. A. M. hill climb on Decoration Day; also an open track meet July 4. It will be remembered that the club held a very successful race meet last Labor Day.

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General Editorial and Business Direction
J. LEO SAUER

L. H. CORNISH - - - - - - *Advertising*

HOW WE'RE GROWING

PRINTED COPIES LAST YEAR

Jan.	1	3,250	July	1	4,100
"	15	3,750	"	15	4,250
Feb.	1	3,750	Aug.	1	4,700
"	15	3,750	"	15	4,400
Mar.	1	3,750	Sept.	1	4,400
"	15	3,850	"	15	4,500
April	1	4,000	Oct.	1	4,600
"	15	4,000	"	15	5,100
May	1	4,100	Nov.	1	5,200
"	15	4,100	"	15	5,400
June	1	4,100	Dec.	1	5,400
"	15	4,200	"	15	5,700

1909 TOTAL: 104,350

THIS ISSUE: 6150 COPIES

BY-GONES AND—PROSPECTS.

RELIABILITY.—The time is rapidly approaching when that will be the foremost consideration in the minds of nine out of ten prospective purchasers of motorcycles. They will also have to be convinced that the machine being demonstrated is absolutely noiseless, quite clean, without either saddle or handle-bar vibration, and a dependable hill-climber. Light weight and ease of starting are to be considerations of secondary importance, more or less effective in determining the choices of middle-aged and older men.

Speed?

Just now, important. Consequently, track performances are voraciously read and gloatingly talked about. Yet not so much in the auto field as, say, two or three years ago. Many recognized car manufacturing leaders will have nothing more to do with racing. Then, too, bicycling had just the same experience, though probably not so intense, as motorcycling is having now.

It is only of late that the motor-driven two-wheeler has been generally regarded as anything else than as a loud and dirty space-eater, troublesome toys of foolish, usually speed-crazed boys. Motorcycles were seldom seen doing anything else than tearing up the road and throwing it in sections, together with the grime of the machine, upon the latter's driver. When one was approached by one of these monsters from any direction, announcement of the fact was atrociously made, a la muffler cut-out, from a distance of a mile or more.

No wonder the public, even the athletic part thereof, was not favorably impressed. Of course, ever improving track performances, generally quite on a par with those of the fastest four-wheelers, attracted attention, and the motorcycle became widely known, but more as a speed machine than anything else. Today, the knowledge of the average healthy American who ought to be a good prospect is thus limited. A pile of missionary work is being done by the printed word, though producing conviction is usually rather a slow process because motorcycle riders themselves only too often fail to realize the professions of their spokesmen. Instead, types of the old order of things, they do little but hold back. Yet all except the most hopeless among them can be trained to follow the straight and narrow path that leads to trade prosperity and a great reputation for the sport.

We expect to have the paper over-run with stories of race meets this summer. The outlook promises a record-breaking season in this particular. But the year 1910 may mark the crest of the racing wave; whether or no, that is our hope, buoyed up by indications that more attention than ever will be paid this year to contests designed to try the dependability of machines under every possible normal and certain abnormal conditions. But who will deny that most of these so-called endurance and reliability runs are destined to degenerate into mere road races?

Ah, there's the rub. Still, we can have real reliability and endurance contests if we want them. It is our privilege to adopt tried foreign practices and thus insure our working out the real purpose of these competitions. Let the controls be hidden and secret; penalize excessive speed at any point; base the awards partly on the strength of the steadiest approximation to a stated average mileage per hour; prohibit a rider from passing one ahead of him unless the man in the lead be behind his schedule. This last rule would have the effect of mitigating the dust nuisance to some extent, a minor consideration perhaps, although any reasonable expedient likely to help keep the contestants clean ought to be adopted.

The demand for motorcycles this year bids fair to be greater than the supply. That is not to say that the trade would not be tickled quite to death were the demand about three times what it actually is. However, the practices of those who ride this summer will largely determine the number of riders in 1911. Will there be three times as many? There ought to be, provided only the utilitarian features of the motorcycle are demonstrated in a way to produce lasting conviction. It can be done with ease, by individual riders, clubs, contest associations and, of course, the F. A. M. Racing won't do it, that is, not to any extent, although there is not the slightest occasion for any attempt to abolish racing. But its value to the sport and to the trade has been over-estimated; its influence will diminish rather than increase with the passage of the years.

So, then, ye who have the best interests of motorcycling at heart, each one of ye do all in his power to show that the motorcycle is a dependable, quiet, clean and economical means of recreation and of transacting many kinds of business. You need not prove that the machines are fast; most everybody who keeps his eyes and ears open already knows that, and 'tis better to have one man buy a machine for the reasons first above-named, than have two acquire them for road-burning purposes.

Here endeth the first lesson of the Spring of 1910.

TIPS AND TOPICS

I WAS very much surprised to learn from one of our leading manufacturers, at a recent show, that he had discontinued the use of V rubber and canvas belts and had gone back to the old form of flat belt with idler. Now, it was years ago when I first struck the V rubber and canvas belt, and, as I have had many since then I can honestly claim to have a little knowledge on the subject. First of all, the question turns upon suitable pulleys and rims which accurately fit the belt. Next in importance are suitable belt-fasteners, which will not pull out and, lastly, the quality and condition of the belt itself. It may seem strange that I put this consideration last of all, but I have actually had cheap belts of rubber and canvas in use for miles without trouble on accurately formed 28-in. pulleys, with a good fastener to back up the whole shooting match. Of course, the belt was 28 inches also, otherwise there would have been trouble. I do not condemn any manufacturer's action in discarding an experiment, but I certainly think that it was unduly hasty and should have been postponed until the question was beyond doubt. In the world of motorcycledom we have hundreds of makes besides those within our shores, and yet it is noticeable that there is a marked preponderance of opinion in favor of the rubber and canvas belt. I am no stickler for any controversy, but this shows that there is at least merit in this form of drive. Mark you, I did not call it the perfect drive; that has yet to be found.

I have one V belt in use which has actually over 5,000 miles to its credit and yet is good for more, because it has been carefully treated, both when in and out of use. By the latter, I mean "resting" the belt, when the machine is not in use, by taking it off the pulleys. The fastener has never pulled through, although I must confess to having had a fastener made to my design, before using the belt, and replacing the original supplied by the makers with this one. This fastener has an extremely flexible joint and claw fitted jaws, with serrated edges, which grip the belt firmly and bury themselves in the surface when the fastener is screwed up. In addition to this, when I originally fitted the fastener, I took special care to punch the screwholes exactly perpendicular. When using the machine I have always taken good care to wipe off any chance blobs of oil or grease and from time to time have cleaned away any grit or dirt with a rag dipped in gasoline, drying the belt thoroughly after this. Gasoline is, as we are aware, a solvent of rubber, so it is always best to avoid any chances.

Carbon Deposits Chemically Analyzed.

In dealing with a puzzled reader's query, a new and interesting train of thought got started, and the strain caused by this brain-exercise has been so unusual that I have been reading up the question, to find that there may be some likelihood of my having stumbled upon a great secret of Nature. The question was one which referred to carbon deposits on the cylinder head and on the piston and, after duly disposing of the question, giving the reasons for this deposit as too rich a mixture and over-use of lubricating oil, I began to wonder why such deposit from both sources should be carbon. Chemical analysis shows us that the greater part of this deposit is carbon, nevertheless in the allied forces of carbon and hydrogen which are to be found in almost every part of the scheme of the universe, this combination is most noticeable. The constituency of petroleum derivatives from which we get our gasoline is the same. That is, both gasoline and lubricating oil have their main components in carbon and hydrogen in essentially the same proportions with a slight addition of oxygen and minute quantities of other elements of insignificant amount. This proves, without doubt, that over-lubrication or driving with too rich a mixture should result equally in the deposition of a certain amount of carbon residue on the walls of the combustion chamber and on the cylinder head and, as we know, this is actually the case. From this it may be proved that driving with too rich a mixture and over-lubricating are far nearer akin than one might suppose. Thus, chemical analysis certainly teaches us something, but I fear to go further in my researches into the hidden book of wisdom, or I might start proving that a side-slip and a short-circuit are the same thing because they both produce bad language. I once discovered that silver attracted copper, but that (as Kipling says) is another story of graft and an avaricious guardian of a speed trap.

Shall We Never Be Rid of This Fellow?

Will nothing ever rid us of the no-muffler fiend? I have turned my caustic wit on him erstwhile, forsooth, and 'twas only a day or two ago that he disturbed my dreams in vilest fashion. I was in San Antonio and took "occasion by the hand" to visit the Alamo, that historic and ancient structure so bravely and fruitlessly defended by 188 men against a force of 6,000. I was in the quiet of the mouldering old building, picturing the final scene of the massacre and the last valiant stand against overwhelming odds when—"putt—putt—putt!" there came flying past the doorway a youth with no muffler and red socks. The no-muffler part of the act was just as noisy as the socks and my dreams of valor and fighting were shoved around, so to speak, in mad, unconquerable lust for that youth's blood. Oh, for those six thousand Mexicans to surround and massacre that varlet of the hideous hose. As Hezekiah put it: "Surely it is better for one poor man to buy a muffler than a half dozen ironclads of assorted color, like unto Joseph's coat!"

Gas-tight Unions an Important Safeguard.

A short time ago I recounted my experience with a twin cylinder which was seized with an extraordinary fit of missing until I found that loose inlet pipe unions so spoiled the mixture that the whole trouble lay right there. Now, the machine, prior to this fit of waywardness, had developed a somewhat abnormal gasoline consumption, doubtless owing to the fact that the only way to cure this chronic missing was to open the throttle almost full all the time when driving. Of course, naturally enough, before suspecting the loose union I laid the blame on the carbureter, after having tested everything else. First of all, I suspected that the mixture was too rich, taking my deduction from the increase in the gasoline consumption, and I looked for black smoke from the muffler, with the cut-out open, but there was nary a sign of it. Next I shut off the gasoline supply, and finally opened up the throttle slightly, but the engine did not speed up as the level of gasoline in the float chamber of the carbureter was lowered, so evidently this was all in order. On testing again, I reversed matters and tried an experiment to see if the mixture was too weak. To do this, I depressed the plunger of the carbureter while the engine was running and she speeded up. This operation, of course, raised the level of the gasoline in the float chamber of the carbureter to a slight degree and, naturally, the result was an increased flow of gasoline and a consequent increase in the richness of the mixture. To proceed further with this test, I covered up part of the air intake on the carbureter with my hand and still better running was the result. Thus I concluded that my deductions were correct and that the carbureter was at fault, but I should have "touched wood" before congratulating myself. I proceeded to bring forth the trusty wrench to entice the carbureter from its resting place when, as I was fooling round trying to get the blame nut started, I noticed the loose union. Fortunately, I had horse-sense enough to tighten these unions and start up to see whether the real trouble lay there, or I might have been in the cellar struggling with that machine now. The strangest point is that the gasoline consumption of that machine is now quite thirty per cent. lower. Therefore, to obtain the lowest gasoline consumption it is the best plan to see that all the unions on the inlet pipe or pipes are gas-tight joints.

Good Way of Finishing Exhaust Pipe and Muffler.

I have never discovered any aluminum paint which will stay "put" on an exhaust pipe or muffler. Many a time have I seen an overhauled machine come out from its winter quarters with the exhaust pipe and muffler resplendent with aluminum, and have smiled inwardly at this machine when meeting it later with the paint flaked off the hot spots. Recently I had the pleasure of launching a few tiplets on overhauling and refinishing, but I omitted one good old standby for exhaust pipe finish. About the best thing is to mix up a cocktail of black lead and turpentine and lay this on, working it in well with a brush. Of course, water can be used with the black lead, but I have found by experiment that turpentine gives a far smoother looking and a more lasting finish. When the coat has had plenty of time to dry a medium stiff stove-brush will put on a fine polish and, after several applications, which take only a few minutes in all, the coat is fairly weatherproof. The appearance of this finish is good, in fact, a great improvement upon the old familiar red rust.

How One Machine Made a Bad Impression.

I took delivery of a new 1910 machine the other day. I naturally anticipated that the engine would be in some sort of running condition, at any rate, and would not require much preliminary tuning up. But I sold it before riding it, and, as I am not in the motorcycle trade, the mere statement will tell the story. I uncrated the motorcycle and filled up with gasoline, and on turning on the gasoline tap and flooding the carbureter, I found that the needle-valve leaked like a Western grain car. First of all, the carbureter had to come down, the float-level altered and the needle-valve ground in. Then the engine, even after running on the stand, had about as much compression as a ten-cent sponge. I had a look at the valves and found that, if they had ever been ground in, the fact was brilliantly disguised. I did the job thoroughly and found then that the tappet-clearance was miles out—new tappets, properly hardened, had to be made thereupon. I had naturally to tighten up every nut on the machine and to adjust both wheels so that they would turn for half a revolution without physically tiring out the turner, so to speak. The spare valves which were ordered were of the wrong length and were also as innocent of grinding in as the original ones in the engine. Luckily I knew of a man who had just canceled an order for the same machine because of delayed delivery, and he was only too happy to take it off my hands. So was I! I claim that a manufacturer who is so careless as to details as this cannot be trusted to put first-class material in his machine. At any rate, I did not care to take the risk. However, I believe that most of our manufacturers turn out their machines ready for the road and that my recent experience was exceptional. I did not complain to the company; I merely sold the machine as the quickest way out of difficulties which were bound to follow. I shall try another manufacturer soon, merely for the sake of experiment, and there is a sort of nice feeling of expectation as to whether I shall be lucky in my choice. But this experience is fortunately not confined to the home market. I have in years gone by bought motorcycles abroad to find them in like condition. I say this in case any of our foreign contemporaries should take it into their heads to hold this experience up as a "horrible example." In every part of the world unscrupulous manufacturers exist, and I hold that the delivery of a motorcycle, not fit for the road, is unscrupulous and shortsighted policy.

Pitfalls of the Country Road and City Street.

Some time ago we gave a dissertation on road dangers and careless driving. It is impossible in a country as large as ours to do anything but "skim" such a subject. The stepping stones, projecting about a foot above the roadway, to be found in Georgia, West Virginia and perhaps other places, might have been included. I know of two miniature landslides to be found across the road in northern California, the extraordinary deep gutters in the side streets of New Orleans, etc. I believe I touched upon the tree-stumps of Maine; at any rate, I have a very lively recollection of having done so, in the real sense of the word, one dark and stormy night. I witnessed a difference of opinion between a rider of a motorcycle and a mule-pole the other day in the streets of Dallas. I happened to be driving a car at the time and had eased up slightly at a cross-road to allow a mule team to crawl by, when a rider of a motorcycle tried his luck at beating the team. It required only something like this to stir up the mules into sudden cussed energy, and they accordingly hustled. The center-pole projected some three or four feet in front of the mules, and the rider met this half way, so to speak. I gathered from his somewhat disjointed talk afterwards, that the motorcyclist was casting slurs upon the ancestry of the aforesaid mules—but in reality it was only another case of chancing one's luck once too often.

Street Cars and Tracks Ought to Be Avoided.

Street cars are among the things I avoid on principle; in greasy weather it is certainly advisable to give them as wide a berth as possible. First of all, a street car is decidedly irksome when it runs over one's backbone, at least so I have heard; again, car lines were specially designed as a snare for the rear tires of motorcycles. Even on a dry day when following in the same direction as a street car, one has to be extremely careful and guard against the sudden pulling up of the car. If, under such circumstances one manages by superhuman skill to dodge round the back of the car, one is sure to drive directly into a fat woman with fourteen parcels, two kids and one umbrella. Such a procedure is liable to bring upon one the necessity for explaining the situation to a female with an eye like unto that of a Rockaway landlady. It were preferable to dash out one's brains on the back of the car. Street cars and their freight are therefore things to avoid, and can be rightly classed among the genuine road dangers.

TROPHY DONATED BY TIRE COMPANY.

THE two hill climbs which will characterize the New York Club's quarterly Trial on Sunday will be at the Croton Aqueduct and the Hairpin Turn, respectively. Announcement is also made that the G & J Tire Company has donated a $100 trophy for the team making the best showing in the four trials. This is an added incentive to the competitors and explains the very promising team entry list.

DE ROSIER AND LINGENFELDER HURT.

LOS ANGELES, March 25.—Spectators at the Coliseum were given two thrills yesterday afternoon in the opening events, when Ed Lingenfelder was hurled from his machine, while rounding a curve at the rate of more than a mile a minute, and when Jake De Rosier, world champion, was thrown from his cycle on the very same point.

Lingenfelder sustained a broken wrist, lacerations of the right shoulder and bruises and wounds on the face, chest and hips. He was thrown forty feet and struck high up on the track and then rolled over, time and again, until he thudded against the ground within the "saucer." He was hurried to the nearest physician's office for treatment.

De Rosier was more fortunate. He struck hard on the track, but reached the ground with nothing more serious than a strained hip, and minor scratches. After a rest he was able to start in another race.

The big throng that filled the grounds received only disappointment in the contests between De Rosier and F. E. Whittler, the Pacific Coast champion. In the first race between the two men, De Rosier had his "spill," and Whittler finished the eight miles alone, without making any effort for a speed record. In fact, he slowed down for two of the laps, in the belief that he had been flagged by the referee.

In the second appearance of the two racing foes, they were joined by Arthur Mitchell. After sweeping around the oval for five laps, De Rosier was forced to retire for lack of oil, and again Whittler finished with no real competition from Mitchell, who used only a stock machine. This race was not finished, the judges awarding it to Whittler at the end of twelve miles.

Aside from the two accidents of the day, the greatest excitement centered in a wheel-to-wheel contest for eight miles between Ray Seymour and Hubert Kittle. The machines were side by side every foot of the ride and it was only by the margin of three inches that Seymour finished in the lead. Al Ward rode in this event, but dropped out before the finish. The distance was made in 7 minutes 27 4/5 seconds.

In the ten-mile event, for trade riders, Al Ward defeated both Seymour and Kittle, taking the lead in the fourth lap. The time was 9m. 40⅗s. Summaries:

Four mile open professional—F. E. Whittler (Merkel) was given the race; Lingenfelder was injured and Mitchell failed to finish.

Eight mile—Hubert Kittle (Thor) won; time, 7m. 20s.; Raymond Seymour (Reading-Standard) second; F. Kittle, third.

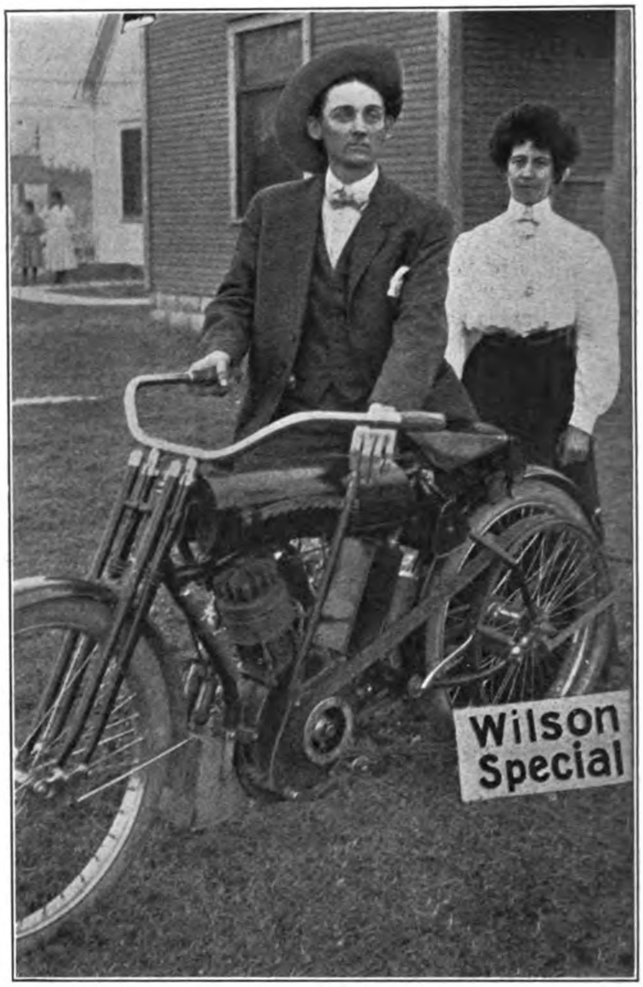
Eight mile professional—F. E. Whittler (Merkel) awarded the race.

Twenty mile professional—F. E. Whittler (Merkel) won; Art Mitchell (Merkel) second; Jake De Rosier failed to finish.

Ten mile trade riders—Al Ward (Merkel) won; time, 9m. 40 3/5s.; Raymond Seymour (Reading-Standard) was second, and Hubert Kittle (Thor) third.

A UNIQUE WICHITA PRODUCT.

THE engine fitted to this machine is the third gasoline motor built by Max L. Wilson of Wichita, Kan. Mr. Wilson is twenty-eight years of age, and is responsible for the design and the constructional details of what is called the Wilson Special. His wife, who is twenty-five years old, is quite as much of an enthusiast as he is, and it is to satisfy her motorcycling wants that he is building another machine of special pattern. Mr. Wilson, like his father, is an expert machinist. The latter constructed the first horseless carriage ever seen in that part of Kansas, and Wilson learned to walk beside an iron lathe in his father's shop.



The specifications of the Wilson Special are as follows: Wheel-base, 55 inches; tires, 28 x 2½; bore and stroke, 3 17/32 x 4; weight of fly-wheels, 37½ pounds; inside diameter of crank case, 12 inches; height of engine, 22½ inches; weight of machine when stripped for racing and capable of making about a mile a minute on a dirt track, 163 pounds.

THE first motorcycle racing event on the Brooklands track, England, took place on March 16. The first race was the All Comers' Handicap, for motors not exceeding 1,000 c.c. The winner of this race was H. Martin on a machine of his own make, of 340 c.c. displacement, receiving a handicap of 2 min. 20 sec. Second was W. O. Bentley (Indian), 638 c.c. displacement, handicap 36 sec. Third, A. C. Maitland (Trump-Jap), 482 c.c. displacement, handicap 1 min. 51 sec. Fourth, H. V. Colver (Matchless), 964 c.c., scratch.

There were thirteen starters in this race, and Bentley, on a 5 Indian, was in a position to win the race handily when he mistook a signal and started to finish on the second lap, instead of the third. This gave Martin a walkover.

The other event was the "One-Hour Tourist Trophy Race," for machines complying with the 1910 Tourist Trophy conditions, except that purely touring accessories could be removed. In this race there were ten starters, and it was easily won by C. E. Bennett, on a 5 Indian, who made 50 miles 870 yards, and incidentally beat the 50-mile British record by covering the distance in 49 min. 55⅖ sec. W. O. Bentley (Indian) was second, with 58 miles 1,040 yards; G. Lee Evans (Indian), third, with 55 miles 1,690 yards; T. A. McNab (Trump-Jap), fourth, with 54 miles 1,715 yards.

A VERY FINE ENTRY LIST FOR NEW YORK CLUB'S FIRST QUARTERLY TRIAL.

APRIL 3 is the date of the first event to be conducted under the auspices of the Metropolitan Association of Motorcycle Clubs. This will be the first quarterly trial of the New York Club, over the route from New York to Poughkeepsie and return. The competitors will be divided into two classes, those riding singles and twin machines respectively. The entrance fee is $2, and gold medals will be awarded to all who finish with perfect scores. Entry blanks may be had from the Competition Committee of the New York Motorcycle Club at 2312 Broadway, New York City.

The other three quarterly trials to be conducted by the New York Club will be held on June 19, Sept. 11 and Nov. 6 respectively. Special prizes will be awarded to teams composed of four riders mounted on the same make of machine. The combined score for the four riders will be considered in making this special award. Penalties will be imposed in each trial as follows: For failure to climb hill without pedaling, ten points for single machines and twenty-five points for twins or four cylinders; for dismounting on hill, a penalty of fifty points will be imposed. The schedule of the first trial calls for an average speed of fifteen miles an hour from New York to Tarrytown. Thereafter the schedule calls for nineteen miles an hour to Poughkeepsie and return to Tarrytown, when the fifteen-mile schedule will again govern to the final control.

The entries filed up to Wednesday, March 30 were as follows:

Merkel Team.—J. F. McLaughlin, 7 h.; A. G. Chapple, 7 h.; W. J. Tuebner, 6 h.; H. B. Lyons, 7 h.

Excelsior Team.—Stanley T. Kellogg, 3½ h.; A. Clages, 4 h.; H. B. Kellogg, 4 h.; S. Sturgiss, 3½ h.

Reading Standard Team.—Frank Hart, 7 h.; A. Graves, 3 h.; W. Stubner, 6 h.; Gene Coughlin, 3 h.

Indian Team.—F. A. Baker, 3½ h.; Walter Goerke, 3½ h.; Sam Bell, 5 h.; H. C. Mapp, 2¾ h.

N. S. U. Team.—D. Molin, 6 h.; F. Voelker, 3 h.; Leo Schearz, 3 h.; A. Hoffman, 4 h.

Individual Entries.—E. C. Fleming, 5 Indian; S. Picorille, 5 Indian; J. Buckingham, 4 Harley-Davidson; C. P. Rogers, 4 Excelsior; Geo. Ashley, 6 N. S. U.; John Cox, 3½ Indian.

L. H. Guterman, President of the Metropolitan Association, has appointed the following as members of the Contest, Roads and Tours, Finance and Publicity Committees respectively:

Contest Committee.—M. P. Sullivan, Concourse M. C., chairman; J. N. Constant, Linden M. C.; Dr. J. P. Thornley, N. Y. M. C.; H. C. Page, N. J. M. C.

Roads and Tours Committee.—George Reichey, N. J. M. C., chairman; Wm. A. McClelland, Concourse M. C.; A. B. Pollock, Linden M. C.; Wm. L. Coursen, Harlem M. C.

Finance Committee.—V. H. Downs, Concourse M. C., chairman; P. W. Stevens, N. J. M. C.; A. C. Klages, L. I. M. C.; M. McKeever, Metropolitan M. C.

Publicity Committee.—J. L. Sauer, Harlem M. C., chairman; Harold Fletcher, Linden M. C.; R. S. Morton, N. Y. M. C.; R. B. Whitehead, N. J. M. C.

The following list of road and track events will be conducted during the season by the various clubs affiliated with the Association:

ROAD CONTESTS.

April	3	N. Y. M. C.	1st Quarterly Trial
"	17	Linden M. C.	Century
May	1	N. Y. M. C.	Century
"	15	Harlem M. C.	Century
"	29-30	N. J. M. C.	Endurance Run
June	5	Concourse	Savin Rock Run
"	12	Long Island M. C.	Century
"	19	N. Y. M. C.	2d Quarterly Trial
July	2-3-4	Harlem M. C.	Atlantic City Run
"	17	Concourse M. C.	Economy Test
"	24	Linden M. C.	150 Mile Run
Sept.	4-5	Joint Association Endurance Run.	
"	11	N. Y. M. C.	3d Quarterly Trial
"	18	Harlem M. C.	Century
Oct.	2	Linden M. C.	Century
"	16	Metropolitan M. C.	Century
"	23	N. Y. M. C.	Economy, non-stop
Nov.	6	N. Y. M. C.	4th Quarterly Trial

RACING DATES.

May	8	N. J. M. C.	Race Meet
June	12	N. J. M. C.	Race Meet
"	19	Harlem M. C.	Race Meet
"	26	N. J. M. C.	Race Meet
July	9	N. J. M. C.	Race Meet
"	10	Long Island M. C.	Hill Climb
"	16	N. Y. M. C.	Race Meet
"	23	N. J. M. C.	Race Meet
"	30	N. J. M. C.	Race Meet
Aug.	6	N. Y. M. C.	Hill Climb
"	7	Linden M. C.	Race Meet
"	13	N. J. M. C.	Race Meet
"	20	N. Y. M. C.	Race Meet
"	27	N. J. M. C.	Race Meet
Sept.	10	Harlem M. C.	Race Meet
"	18	N. J. M. C.	Race Meet
"	24	N. J. M. C.	Race Meet
Oct.	2	N. J. M. C.	Race Meet
"	9	N. Y. M. C.	Race Meet
"	16	N. Y. M. C.	Race Meet
"	30	N. J. M. C.	Race Meet
Nov.	8	Election Day. Joint Race Meet by the Association.	

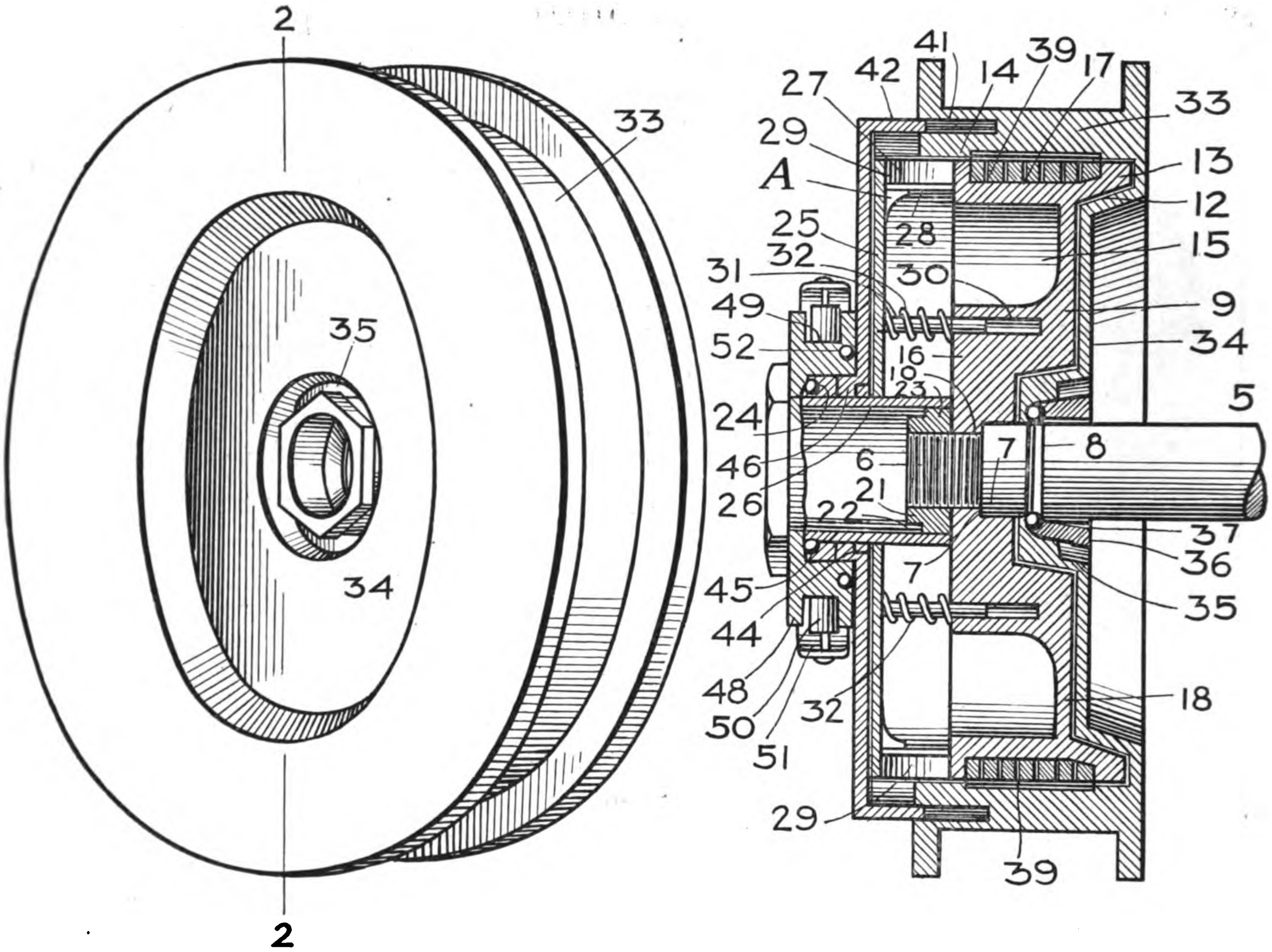
THE first motorcycle event of the season in Scotland was the Glasgow University open scratch hill climb on Peesweep Hill, which took place on March 12. As the only Indians present were 5 h. twins, they were eligible in only two events, class 2, for multi-cylinder machines, unlimited, handicap; and class 3, a scratch race, for singles up to 500 c.c. and and twins up to 750 c.c.

In both of these events the Indian swept the field by taking first, second and third places. The winners in both events were Alexander, first; Deans, second, and Baddely, third. All three are private owners, and as each competitor was timed up the hill three times, the fastest two times counting, it is very evident that there was no possibility of a fluke.

Not only did the Indian win in both classes, but it made the fastest three times of the day, in competition with such well-known performers as the 6 Jap and 8 Matchless and other well-known makes. Mr. Alexander also established a new record for the hill. As there were several hairpin curves on the hill the average of 45 miles per hour, made by Mr. Alexander, is considered a wonderful performance.

THE Rhode Island Club held its annual meeting and election of officers recently. Twenty-five of the members went to the Briggs Hotel, Phenix, to dinner. The officers for the current year are as follows: President, J. B. McLaughlin; vice-president, W. A. Suddard; secretary and treasurer, W. L. Medhurst; race committee, Charles Walmsly, Hiram Baxter, J. C. Loftes; finance committee, W. A. Suddard, Hiram Baxter, E. E. Rider; membership committee, Charles Walmsly, Hiram Baxter, J. M. Boudreau; entertainment committee, Charles Walmsly, Hiram Baxter, W. H. Earnshaw; press agent, Hiram Baxter. The club will hold a smoker soon.

ANOTHER VARIABLE SPEED PULLEY AND FREE ENGINE DEVICE.



LAST year I made a pulley one part of which was keyed to the engine shaft, with the belt member a free part from the engine member. I placed a brass expanding ring between the two with wedge-shaped slots, the small wedges being made of iron and threaded for screws to tighten up against the brass ring, so to expand it against the outer member. This produced the same result as the compensating sprockets on the chain-drive motorcycles, but combined in the small engine pulley. In trying it out I found the results simply great. Hills which the machine never climbed before were easy to ascend with the help of my pulley. In working out the patent, I combined a clutch arrangement which gave me a free engine as well as a variable speed pulley. I would like to have some first-class firm arrange with me to place this device on the market. I am satisfied that the design is good and the pulley quite easily manufactured.

Lansdale, Pa. BRUCE W. BEAN.

Satisfied with Two-Cycle Motor.

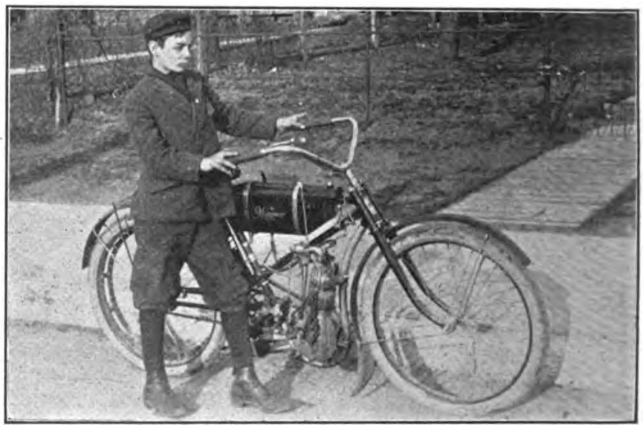
HAVING ridden a two-cycle motorcycle for about seven years, I thought my experience would be of interest to many of your readers. About 1903 I designed a two-cycle motor, built it and put it into a frame; I have been using it ever since. As for engine trouble or backfiring, I have had none, while its ease of starting has been remarkable. The size of the cylinder is 2¾-inch bore by 3-inch stroke, with outside fly-wheel. I can ride slower than necessary and bring the speed up to forty miles an hour with the engine running just as regularly as clock-work, even when I have carried a passenger on an attachment in the rear. I believe that in my two-cycle motor, special cushion frame and patented spring tandem attachment I have as good a machine for pleasure as any one could ask for. There are no valves to contend with, and by running the motor on the stand I can start off after ten feet of pedaling. Since last August I have covered 1,000 miles, carrying my wife with me most of that distance.

Alameda, Cal. G. H. BLAKE.

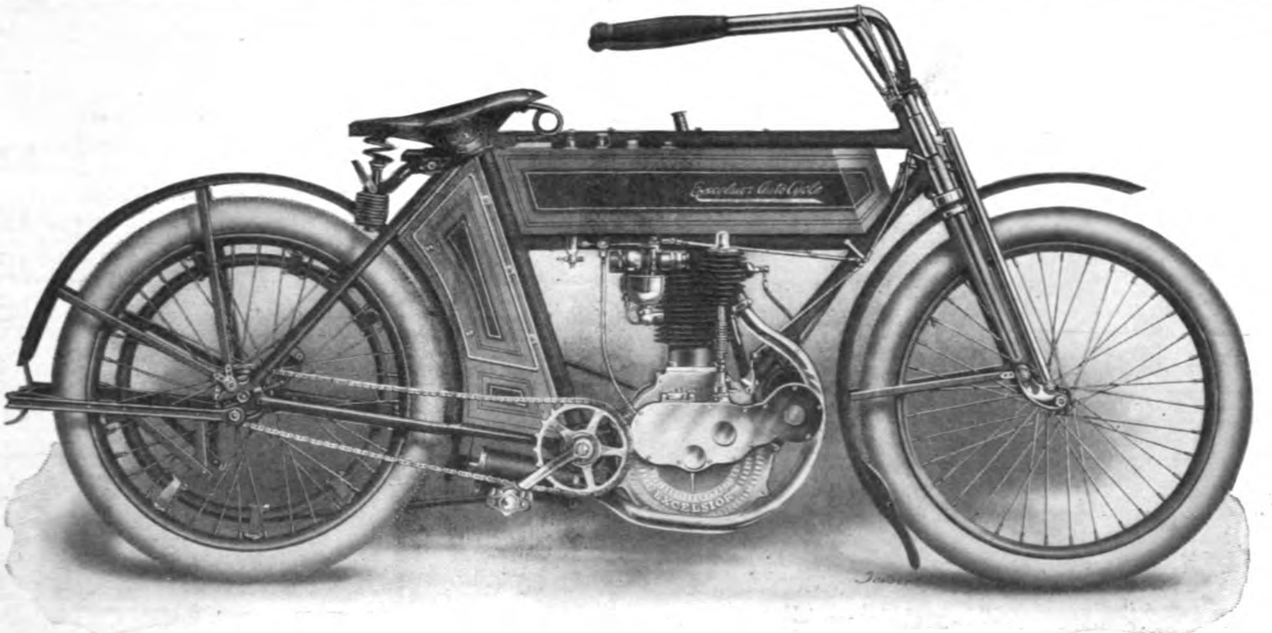
Accepts Challenge of Youngsters.

BEING only fourteen years old, I have always considered myself the youngest rider in the State of Indiana. In any event, I am prepared and anxious to accept the challenges of Walter Simon and Otto Kraushaar. I have been the owner of two machines and have ridden almost every standard make. I have already covered thousands of miles and have also entertained my friends with some trick riding. I use a Wagner and have never had any trouble worth talking about.

Indianapolis. MAURICE HOLLINGSWORTH.



Maurice Hollingsworth.



"THERE IS ALWAYS ONE

By which the others are measured."

When the City of Chicago called for bids on motorcycles for the Police Department, the specifications required that the machines furnished be fully up to the standard of those then in use in the department.

The machines referred to were Excelsiors and the contract for the new machines was awarded to

EXCELSIOR AUTO-CYCLE

THE ONE THAT ALWAYS MAKES GOOD

Is not this a convincing proof of

EXCELSIOR SUPERIORITY?

Think It Over—Then Get Busy

EXCELSIOR SUPPLY COMPANY

ESTABLISHED 1876

233-237 RANDOLPH ST., CHICAGO, ILL.

Eastern Representative
STANLEY T. KELLOGG, 2312 Broadway, New York

Pacific Coast Branch
361-363 Golden Gate Ave., San Francisco, Cal.

QUESTIONS & ANSWERS

Piston Ring Repairs.

G. G. JUPENA—We published in our March first issue an answer (with sketch) to your inquiry as to how to time a 1908 twin Indian. In reply to your other questions, we would advise that the best way to make a tight joint between the two halves of a motor base is with a solution of shellac. If this will not hold the oil, the base has been sprung. Between the cylinder and the base usually nothing is required, as the studs pull it down tight enough. If, however, there is still a leak at this point, a gasket of fairly thick soft paper soaked in shellac will be sufficient.

Your inquiry how to make an old set of rings go a little longer is rather indefinite, but it is pretty safe to say that, as a rule, the old ring has settled in at the ends and is also somewhat burned. It is sometimes possible to bend these ends out just a trifle with a pair of pliers, to renew the bearing on the cylinder, but the operation must be done carefully, and it is just a question of luck how long the rings would last.

Some ingenious writer back in the early days of motorcycling published an article about tinkering up piston rings, and this has been revived periodically many times. The method stated is to place the ring on a metal block, and carefully hammer it on the inside along its thickest portion, and this, it is claimed, will renew strength in the ring and make it a tight spring. Others claim that the hammering will open the ring out to some extent, but not *lift the ends*, where the leakage always occurs, and when the ring is sprung back into the cylinder it is apparent that these ends are just as low as ever, and the only place where the ring bears in the least more firmly on the cylinder is about quarter way around from each side of the cut; so that there will be leakage holes wherever the ring has been hammered. The real remedy for a leaking ring is a new one, for when a ring begins to leak, it is a pretty good sign that it is burned out, although the average rider does not recognize the symptoms.

Transmission Pros and Cons.

WHICH is the best mode of transmission for a motorcycle, belt or chain? E. S. Thompson.

This question is a matter of individual choice entirely. The best way of dealing with the matter is to give you the advantages of both systems and leave you to choose for yourself.

The chain drive is free from slip if the friction clutch is working properly, that is, adjusted to just the right tension. When this is the case, the chain is a sure transmitter of power and, provided the chain is kept clean and well lubricated, this form of drive is good in every way. The only difficulty is that a chain is hard to repair in the event of its breaking.

The job then takes at the very least half an hour, and it is a dirty half hour at that. For passenger work undoubtedly the chain-drive is preferable, whereas for single work, it is a matter of choice. The adjustment of a driving chain takes longer than the same operation with a belt-drive, and when the sprockets get worn, they must be replaced or a new chain wears out of pitch very quickly.

The belt drive is clean, silent and economical. To shorten a V belt takes only a few minutes, and a flat belt can be instantly adjusted by the idler. We have a preference towards the V belt on account of its cleanliness, as the flat belt is apt to pick up mud in wet weather more than the V type. However, this is also a matter of choice, as there are several fine machines on the market fitted with flat belts.

Belt drive is cheap and has the advantage of simplicity; chain drive is more positive but slightly more troublesome. This about sums up the whole matter.

The Wall Auto-Wheel.

WILL you please tell me where to write for information concerning the "Wall Auto-Wheel." Elmer K. Musick.
Colorado Springs, Colo.

The Wall auto-wheel is manufactured by the makers of the British "Roc" motorcycle: A. W. Wall, Ltd., Roc Motor Works, Aston road and Dartmouth street, Birmingham, England. The dimensions of the Auto-wheel horizontal engine are 1¾ by 2 inches and this little motor is claimed to develop no less than 1¾ h. p. Unlike other two-strokes, this machine, instead of sucking the charge of gas into the crank-case, is provided with a special chamber for the purpose, formed by the non-working end of the piston being lengthened into a plunger reciprocating in another cylinder, which is simply a continuation of the main working cylinder. From the recent illustration which we gave you can follow the operation. The charge of gas is taken into the right hand port of the cylinder, transferred to the left-hand end, and fired in the combustion chamber.

License Exemptions in Eastern States.

I CONTEMPLATE making a tour through the East and Middle West. How many of the States east of the Mississippi recognize the licenses issued by Pennsylvania, in which State my machine is registered? World-Be Tourist.
Philadelphia, Pa.

New Jersey—License good for eight days, or for four periods of two days each, issued for $1. Delaware—Privilege for ten days to licensed Pennsylvania riders. New York—Exempt. Ohio—Exempt if laws of home State are complied with. Indiana—Exempt if tag of home State is displayed. Illinois—Exempt if tags of resident State are displayed. Michigan—Reciprocal exemption, provided tag of home State is displayed. Connecticut—Exempt for ten days; revocable if convicted of violation of motor car law. District of Columbia—Exempt if State tag and credentials are displayed. Massachusetts—Exempt for seven days if tag of home State is shown. Missouri—Exempt for twenty days if home State tag is displayed. Vermont—Exempt for ten days if home tag is shown; after that owner must register in Vermont. North Carolina—Exempt if passing through the State. Rhode Island—Exempt for twenty days annually if home State tag is displayed.

Double Ignition Systems.

WILL you please inform me if there is a double pole sparking plug of metric size (mica preferred) for a double-ignition system with a Bosch equipped 1909 twin Indian? Also do you know if anyone has tried this plan, and if so, with what result?
Colorado Springs, Col. Malcolm Marr.

There are some double-pole spark plugs in use abroad for automobiles, but we do not know of any of these in actual motorcycle use. The Remy magneto people use some brand of double-pole plug in their system, which is practically the type of electrical arrangement which has caught your eye. We have not seen this adapted for use in a motorcycle, however. The Remy people use the Rajah spark-plug. The only way is to fit a Y adapter or fit two plugs into the cylinder-head. We believe that the only dual-ignition machine ever marketed was made some years ago by the British Quadrant people, and even this model was discarded. Now that the magneto is so reliable, we do not see the necessity of adding complications to a machine.

A Gearing Problem.

I HAVE a 1910 model twin 5 Indian which is geared 4 1-3 to 1, with a 27-tooth sprocket. As I intend using the machine a great deal for business purposes I was thinking of having a larger sprocket put on, as the machine as it is now is geared too high for my purpose. What size sprocket would you advise me to have put on the above-mentioned machine, a 31 or 35-tooth? I would like to know what the minimum and maximum speed the above machine would give with a 31-tooth sprocket.
Lancaster, Pa. Henry C. Vollmer.

We should advise a 31-tooth sprocket, as the 35 will gear the machine too low for any ordinary single-passenger purpose. Gearing too low often causes overheating, etc., not to mention higher gasoline consumption.

Wants Side Car for Twin Indian.

C. OLSON, Spokane, Wash.—Side cars are manufactured by the N. S. U. Motor Company, American Motor Company, Reading Standard Company, and the Aurora Automatic Machinery Company. By corresponding with these concerns, you could ascertain what changes would have to be made to adapt one of these side cars to your 7 Indian.

Touring in Canada.

L. H.—Motorcyclists entering Canada for pleasure must secure license, and also make a deposit in lieu of payment of duty. This deposit is returned when the rider leaves Canada. American money is accepted in Canada.

Two Speeds and Free Engine.

ED. ROESHOT, Pittsburg, Pa.—Two-speed and free-engine devices are manufactured by the N. S. U. Motor Company, Reliance Motorcycle Company, and the Keller & Risque Motor Company, and a free engine pulley by the Eclipse Machine Company.

V. A. G.—As far as we know, there is no club any nearer to your home than the Linden Motorcycle Club, with headquarters at 1604 Bushwick avenue, Brooklyn, N. Y.

Reliance

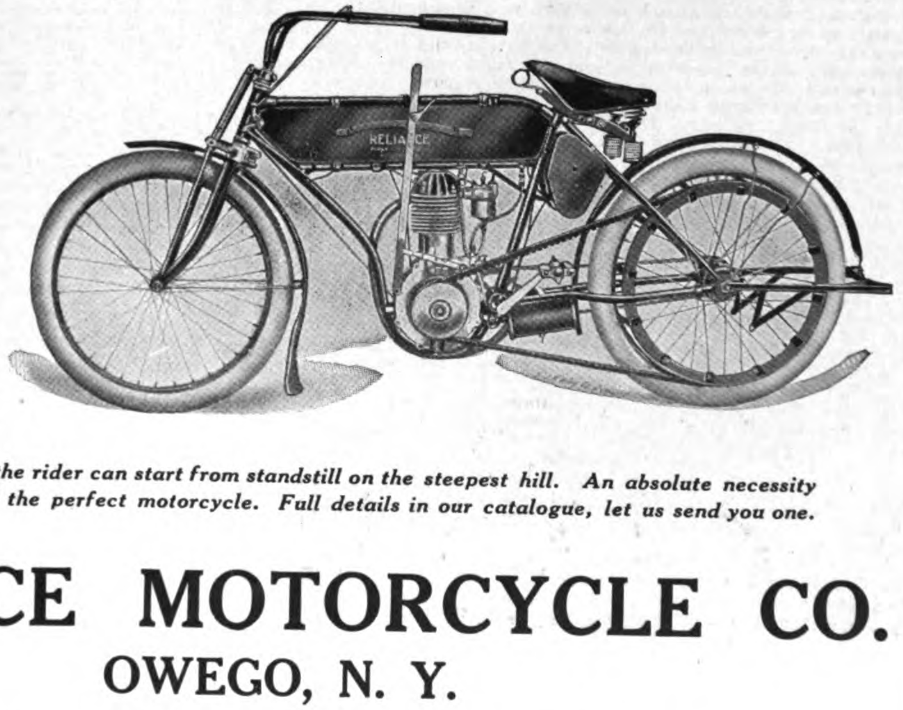
Seventh Successful Season
of the
Reliable Reliance

THE ONE NEW THING IN MOTORCYCLES AT THE CHICAGO SHOW

A COUPLE OF FEATURES:

Truss SPRING Fork, the most flexible and enduring made.

Two-Speed and Free Engine Transmission Gear, the FIRST practical, compact arrangement made. Largest Clutch, Largest Gears and Largest Wearing Surfaces. One lever control.



With this transmission the rider can start from standstill on the steepest hill. An absolute necessity for the construction of the perfect motorcycle. Full details in our catalogue, let us send you one.

RELIANCE MOTORCYCLE CO.

OWEGO, N. Y.

Member Motorcycle Manufacturers' Association

GEORGE NORMAN PIERCE.

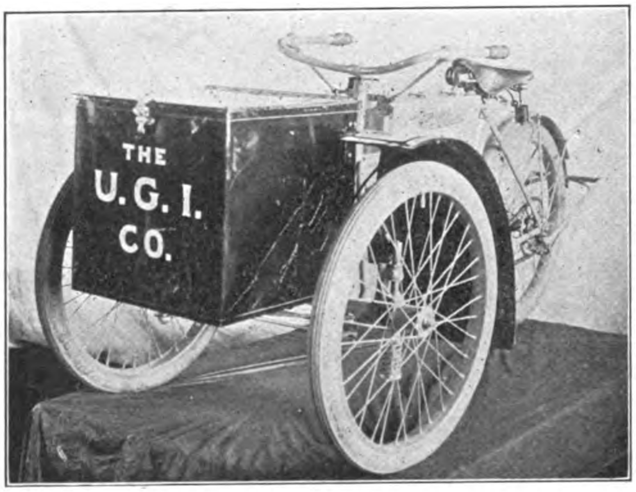
GEORGE NORMAN PIERCE, a director of the Pierce Cycle Company, of Buffalo, N. Y., died quite suddenly in his apartments at the Lenox Hotel, Buffalo, on the evening of March 23. Death was due to heart disease. Although Mr. Pierce had not been in good health for several weeks, still the end came unexpectedly even to the family.

Mr. Pierce at the time of his death was 64 years old. He first engaged in business in 1865 in a general manufacturing shop located in Buffalo. In the early '70's was formed the company of Heinz, Pierce & Munschauer. For almost twenty years this company was continued under that name, manufacturing refrigerators and bird cages. In 1890 Mr. Pierce retired from the refrigerator business and organized under the firm name of George N. Pierce & Co., for the manufacture of bicycles. Mr. Pierce became a leading spirit in the bicycle industry and today all over the country his name is associated with the other well-known pioneers. It is now twenty years since Pierce bicycles were first manufactured and during that time they have never been known to lapse from the highest standard of workmanship and material. Mr. Pierce always insisted that any construction bearing his name should be the best that modern ingenuity could devise or produce.

In 1899 the George N. Pierce Company commenced experimenting on automobiles, and in 1900 was produced the first 2¾ horse-power motorette. A number of these were produced and the satisfaction given by the machines was such that the company was well warranted in continuing the manufacture. The power was increased from 2¾ to 3 and then to 5 horse-power. A year or two after the introduction of the motorette the Pierce Stanhope of 6 horse power was evolved. This had a large sale in all parts of the country and served to popularize Pierce automobiles. The two cylinder 15 horse power, produced in 1903 was the first attempt to enter into the touring car field. Things now moved forward rapidly and the company was soon producing the higher powered cars of 4 and [illegible] cylinders.

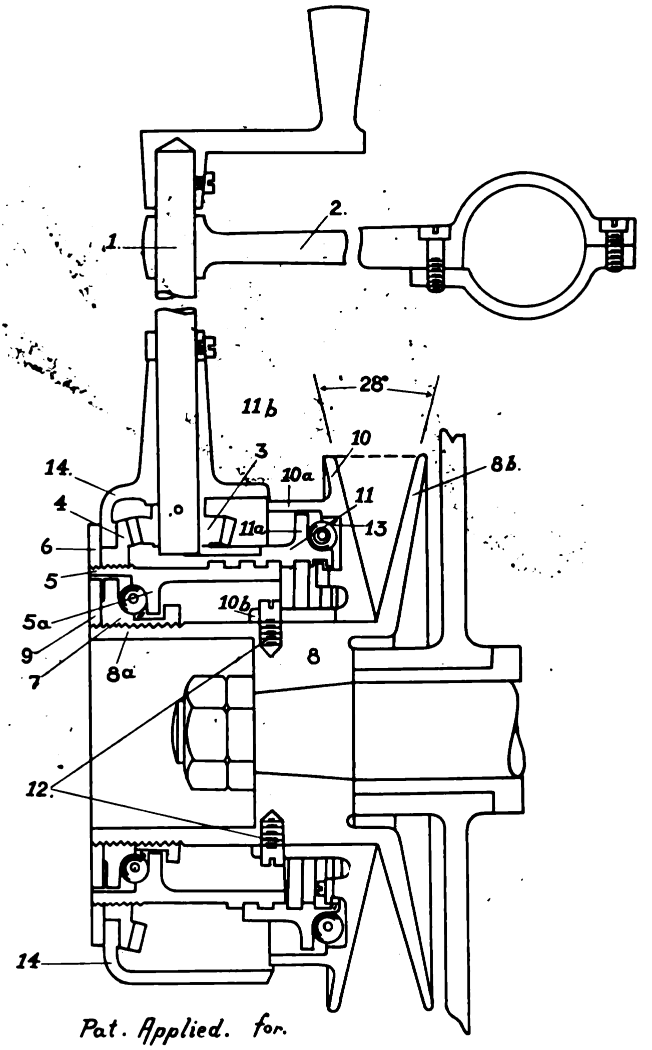
Two years ago Mr. Pierce, because of advancing years and a desire to relinquish the weight of cares involved in carrying on the stupendous business which had been created by his business acumen, resolved to retire from active control. The stock in the George N. Pierce Company was in such demand that Mr. Pierce found it advantageous to dispose of all his interests in that company. Since that time the George N. Pierce Company has been known as The Pierce-Arrow Motor Car Company. Previous to this, in 1906, the bicycle business had been separated from the automobile business, the Pierce Cycle Company being organized to carry out the bicycle business and to produce motorcycles. From the beginning Mr. Pierce has been a director in this company; his son Percy P. Pierce being president.

Mr. Pierce is survived by his wife, six daughters and two sons. He was essentially a home-loving man and there was no better index to Mr. Pierce's character than the respect shown him by his children. Everyone with whom he came in contact admired him for his nobility of character and his many kindly and benevolent qualities. Mr. Pierce had a marvelous creative spirit and a generous disposition. These qualities could not fail but earn for him the universal appreciation in which he is held at the time of his death.



R-S. motor wagonette, of which fifteen have just been completed for the U. G. I. Company, of Philadelphia, which has taken over the retail department of the Wellsbach Lamp Company, and through the systems carried out by the Wellsbach Company, is delivering to the consumer Wellsbach lamps and lamp repairs, including mantels, etc. This was previously done by a man with a pack on his back. One of these vans does the work of four or five men quicker and better and generally more satisfactory because the percentage of breakage of mantels and lamps has been much reduced.

A BROOKLYNITE'S TWO-SPEED



HERE is a new variable speed pulley, invented and placed on the market by George H. Bungay, 564 East Twenty-third street, Brooklyn, N. Y. In designing this device it was the inventor's object to produce a substantially dust-proof, quickly adjustable, frictionless and positive belt drive speed-varying mechanism which could be easily and certainly operated from the seat of a motorcycle of ordinary construction. No. 8 is the main body of the pulley, which is comprised of a projecting hub "8A" and the inner flange "8B." No. 10 is the outer flange which includes the supporting sleeve "10B," which slides on the hub "8." No. 7 is the small outer cone screwed on the projecting hub "8A" and held in place by the check ring No. 9.

The pulley is actuated by the crank handle placed on the upper end of the vertical shaft which is supported by brace "2" projecting from the top bar of the motor frame. On the lower end of the vertical shaft "1" is pinned a small bevel pinion "No. 3," which is in mesh with a large bevel gear No. 4. The bevel gear No. 4 is screwed on the outer end of the male screw No. 5, and held in place by the check ring No. 6. The inner flange "5A" forms the small inner cone. The female screw No. 11 forms the larger outer cone, also the dust flange "11A" and the projecting fingers "11B" (not clearly shown in print) which straddle the lower end of the vertical shaft and prevent the screw from turning.

The two screws No. 12 in hub "8" allow flange "10B" to slide in or out and prevent it from turning. No. 13 is a steel cone inverted in flange No. 11 which forms the larger inner cone. No. 14 is the dust shield, having a free fit between the larger gear No. 4 and the check ring No. 6 and also forming the lower bearing for the vertical shaft. An automobile spring idler will maintain the proper tension for the belt.

The Superiority

of

G&J TIRES

has been so frequently demonstrated that it has now become an axiom with all riders of national reputation. They won't take chances on anything else. The further fact that

all the leading motorcycle manufacturers of the country specify G & J Tires

as their standard equipment will convince you that the Indianapolis G & J Motorcycle Tire is the

unquestioned leader in the world of motorcycling.

You cannot get anything better.

Send for our illustrated booklet.

G & J TIRE COMPANY, Indianapolis, Ind.

MAKERS AND SELLERS

THE TRADE IN DETROIT.

WM. E. WANDERSEE, 129 Gratiot avenue, has a complete line of Merkel and Light machines on exhibition. With a new, up-to-date show window and a life-size painting of "Fearless" Balke on the wall, the aspect of the store is altogether pleasing. The new Merkels have been dubbed "The Yellow Tigers," and they bid fair to make a record equal to that of Detroit's "Tiger" baseball team.

Detroit had no motorcycle exhibition in connection with the auto show this year, and the dealers held a "grand opening" last week in lieu of the show. They advertised in the local papers and kept open evenings all week. Fred Kicherer, 206 St. Aubin avenue, continues to represent the N. S. U., and has several new models in stock. John B. Trossell, Michigan avenue and Fourteenth street, has the Thor, R-S, and Emblem, the latter being this year's acquisition. Ames, Wimmer Co., 29 Washington boulevard, are jobbing the Yale, which is being sold through retailers and repairmen. Wm. E. Mezger, 351 Hastings street, corner High street, is agent for the Excelsior, Indian and Pierce. They have an excellent show-window and report that they can't get the machines fast enough. Economy Cycle & Supply Company, 87 Grand River avenue, continues to handle the Harley-Davidson and Curtiss machines and reports good business. The Racine Boat Company, 256 Jefferson street, handles the Wagner, having recently obtained that agency. R. M. Hunter, 10 Howard street, and Horton & Breed, 40 Hastings street, make a specialty of motorcycle repairing and enameling.

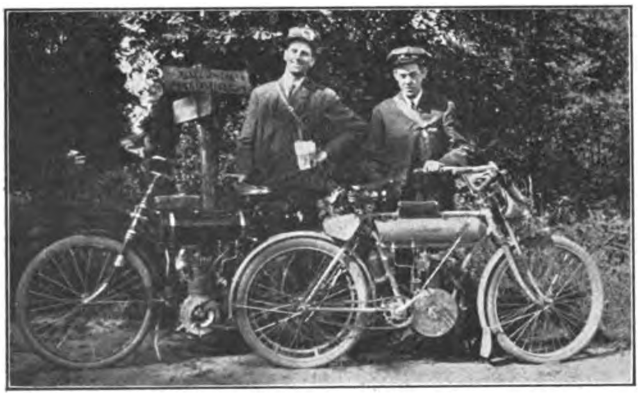
Several race meets will be run off at the State Fair track this season. The course could not be secured last year on account of a contract which a driving club had for the track, but this year no difficulty is looked for, and no doubt the running of some good races will be a great stimulus to the sport in and about Detroit.

Indian Widely Used by Police.

THE successful service which the Indian is rendering in police departments in every part of the country is attested by the fact that at present there are 47 localiles where the machine is in use, and many of these places have used the Indian for five or six years. New York and Philadelphia were the earliest large cities to adopt the Indian after thorough trials, about five years ago, and today Philadelphia has a very complete outfit of 35 machines, while New York owns about the same number. During the last few months Fresno, Cal., Norfolk, Va., and Massilon, O., have adopted the Indian, while the last outfit to be supplied was the one furnished the Illinois State Police, for use in the Lincoln Park department, of Chicago, which is under State control.

AT the recent annual meeting of the Pittsfield Spark Coil Company of Dalton, Mass., Michael Casey was re-elected presiden and William T. Wood was again chosen treasurer and manager, with W. T. Peterbridge as clerk. The Board of Directors includes, besides Messrs. Casey and Wood, T. H. Wetzel, Zenas Crane and Chas. A. Byram.

HERE'S one of the kind to be envied, an erstwhile dealer and rider who is now living on "Easy Street," according to all reports. He is Frederick Roach, of Minneapolis, Yale agent up to last year, and for some time engaged in the bicycle and motorcycle business.



Frederick Roach—To the right of photo.

A BIG BOSCH FACTORY IN SPRINGFIELD.

ON Monday, March 14, papers were signed at Springfield by Otto Heins, president of the Bosch Magneto Company, which conveyed to the Bosch Magneto Company seven acres of land on the outskirts of Springfield on which will be erected the largest magneto plant in America. Work on the first of a series of modern factory buildings will be started at an early date, and by the time it is well under way, the erection of other large buildings will be taken up.

While the Springfield factory is under way, the New York plant will be run to full capacity, and even when the manufacturing is begun at Springfield, the older plant will be continued as heretofore in the Forty-sixth street building in New York, and this plant and office building will be continued as the headquarters of the Bosch Magneto Company and its varied branches. The volume of business tranacted in this plant at the present time is very large; the average output of instruments for some time past has been 10,000 per month, while the total world output of Bosch Magnetos is 30,000 per month—a thousand per day.

Whipple Showing the Doubting Thomases.

THE continuous running of motorcycles seems to have become quite commonplace in Chicago. In front of Whipple's place a 1910 Greyhound fills in about eight hours per day of steady running on its stand, without attention further than keeping it supplied with gasolene and lubricating oil. The people going to work in the morning see it, and find it still quietly performing its steady task when they return in the evening. Whipple discovered the pleasing effect of this test during his "show me show" which followed the Chicago Automobile Exhibition. Mr. C. B. Hull, of the Greyhound factory, who assisted Mr. Whipple, started a brand new machine brought up from the Auto Show. It ran so nicely for Mr. Hull during "show me show week," and proved so convincing to those in doubt, that Whip has kept the practice up. This experiment, properly followed up by dealers, should go far to convince the public that the motorcycle of today is a reliable and safe proposition, worthy of serious consideration from the most conservative.

Offer to Export Into Spain.

WASHINGTON, D. C.—The Bureau of Manufactures is in receipt of a communication from a New York firm of export representatives stating it is very anxious to get in touch with some large manufacturers of bicycles, motorcycles, typewriters and cash registers, with a view to shipping these articles to Spain, which offers a good field for their sale. The letter states it is the intention of the firm to open an office in Barcelona for the exploitation of American goods in that market, and arrangements are desired for representing firms in the United States. All orders will be executed through a New York commission house and paid by the concern in its regular export terms. Correspondence can be conducted in English, Spanish or French.

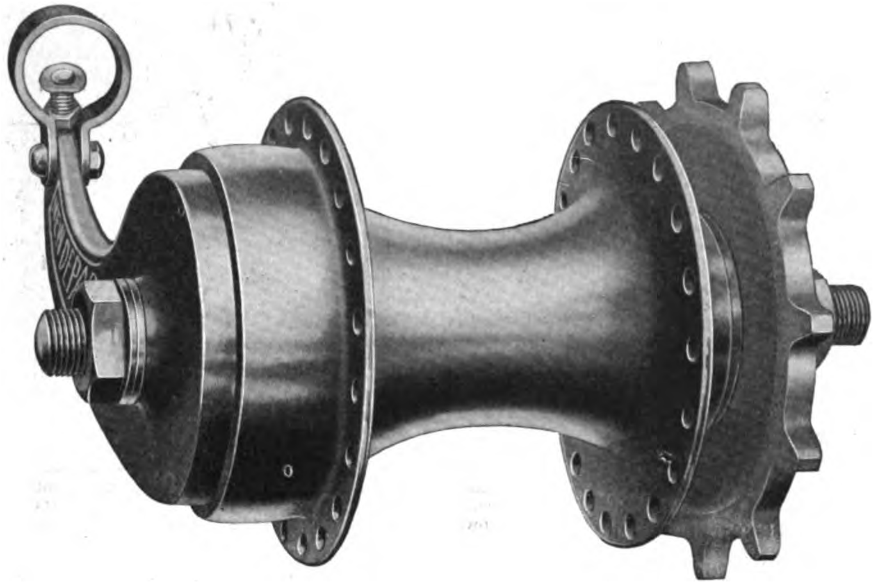
Advertising Copy for R-S Agents.

THE ADVERTISING Department of the Reading Standard Company has adopted a very practical innovation in the way of a booklet containing a series of nine newspaper advertisements, prepared by the factory staff, for agents' use in the daily or weekly papers in their territory. The advertisements are enlargements of the Reading Standard magazine ads re-arranged and reworded, so as to give them the value of a personal appeal from the agent by whom they may be used.

To Enlarge Thiem Factory.

THE Thiem Manufacturing Company, of Minneapolis, Minn., announces that W. Sumner Covey, of the same place, has purchased an interest in the company, which contemplates additions to the factory and the enlargement of its facilities. The demand for Thiem goods has consistently been far greater than the supply. Mr. Covey is familiar with the motorcycle business and will have charge of the company's office, which carries with it the sales-managing, purchasing, etc. At a recent meeting of the stockholders Mr. Covey was elected treasurer of the company.

THE Reliance Motorcycle Company is now represented in Greater New York by the Standard Motor & Sporting Goods Company, with headquarters at 1720 Broadway. The company will be managed by E. F. Hilton, until recently in charge of Morgan & Wright's branch in the metropolis.

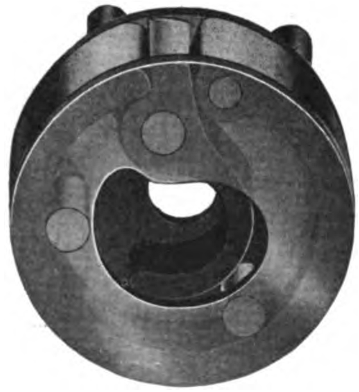


NEW NEW DEPARTURE

Internal Expanding Band Coaster Brake for Motorcycles is

Band Brake and Lever

POWERFUL
PRACTICAL
POSITIVE



Band Brake showing top plates holding parts in position—transparent view

The New Departure is the last word is coaster brakes for 1910 motorcycles. Radical improvements have been made, bringing it abreast of motorcycle advancement. It is dependable under all circumstances, strong enough to stall the highest powered motors; cannot bind, lock, "feed up" the pedals or cut into the hub. Every test proves claims made for it and every user declares its unfailing efficiency.

When asking your dealer about the "NEW" New Departure, do not fail to tell him you want to see the internal expanding band coaster brake.

Write for Folder

THE NEW DEPARTURE MFG. CO.

Coast Brake Licensors BRISTOL, CONN.

Indian A. C. U. Mark Improved.

THE January Quarterly Trials of the Auto Cycle Union of England aroused a great deal of comment, not only among the competitors, but from outside riders as well, resulting in a very thorough scrutiny of all the facts connected with the case. As a result of the criticisms, one heading upon which marks were at first assigned, that for "general excellence of design," was eliminated from the score entirely, as the judges were convinced that this was merely a matter of personal preference of one or two men, and not only had no bearing whatever on the competition, but was of no value to the public generally. The result of this revision of the assignment of marks has been that the American representatives, the four Indian machines, have improved their position, and the combined percentage of the four machines now reaches 95 per cent. in place of 93⅓ per cent formerly recorded.

It has been claimed in some quarters that one English machine made a better showing than any one of the four Indians. This is true, and the rating depends entirely on the marks assigned for ease of starting, in which this particular machine was awarded one more point than the Indian received; but on the other hand it should be stated that this machine had a two-speed gear, which enabled it to start from standstill. Moreover, no notice had been given by the committee who arranged the system of marking that any such discrimination would be made.

Jottings from Here and There.

PROBABLY the first street car advertising of motorcycles is that which is now being done by Jno. T. Bill & Company, the Los Angeles agents for the Reading Standard. The signs used by the Bill concern are of the usual street car size, very attractive and altogether striking. They contain a picture of Ray Seymour on an R-S machine and recite that he is the holder of several amateur world's records. The fact that Bill is conducting a campaign like this is instructive, to say the least, and indicates just how progressive some of the Pacific Coast dealers are.

AN attractive catalogue of its products has just been issued by the Twentieth Century Manufacturing Company, and those who are "seeking more light" will do well to write to that concern at 19 Warren street, New York City, for a copy. The Twentieth Century folks are also getting out some blotters which may be had by any rider or member of the trade upon application, provided simply that he informs the company as to the name of the machine he rides or handles.

FOUR machines were shown at the recent Bridgeport Show. The Excelsior was exhibited by Shelton Sturges, the Indian by the Bridgeport Cycle Company, and the Harley-Davidson and M. M. by the Liberty Cycle & Motor Company. This was the first affair of the kind Bridgeport has ever had, and the results were altogether satisfactory, so much so that it is probable that the show will be made an annual feature.

CARL W. BUSH, a popular member of the Newark Club, has established himself in business at 51 William street as the Newark distributor of the Merkel and Excelsior machines. Bush is a very likeable fellow and a hustler withal. Although he has been at it for only two or three weeks, Bush has already negotiated a half dozen sales, with as many more in prospect.

J. M. DeLEZENE, the Reliance agent in Kansas, has recently established the following sub-agencies in that State: Frank Jones, Woodston; J. A. Martin, Stockton; C. B. Kern, Beloit; Macgil & Son, Stafford; E. L. Conrad, Barnes; Wayne Rhoades, Linn; C. E. Hill, Clyde; A. F. Taylor, Salina; Emil Laier, Kansas City, and Irvin C. Noyce, Manhattan.

A. J. GRIEB has succeeded Horace Le Lisser as president of the Ajax-Grieb Rubber Company of Trenton, N. J. Mr. De Lisser has engaged in the automobile business.

THE first exclusively motorcycle garage in Chicago has been established by C. H. Lang, distributer of the Harley-Davidson, 2 Hubbard court, opposite the Blackstone Hotel.

FRANK A. MINKLER has bought the interest of his partner in the business formerly conducted under the style of Minkler & Collins in Great Barrington, Mass.

JOSEPH HOLLE, the pioneer motorcycle dealer in San Francisco, has secured the Minneapolis two-speed agency. Mr. Holle also handles the Harley-Davidson.

E. O. WILLBER made quite an impression at the Albany Auto Show with his exhibit of Thor, Yale and Minneapolis machines.

FORMERLY the L. J. Gilmer Company, the Salt Lake City agents for the Empire tires are now known as the Utah Motor Car Company.

THE Bosch Magneto Company has recently established a branch at Detroit, Mich. The address is 870 Woodward avenue.

A PIERCE agency has been established in Poughkeepsie, N. Y. Clarence Sakue and Harry W. English will be in charge.

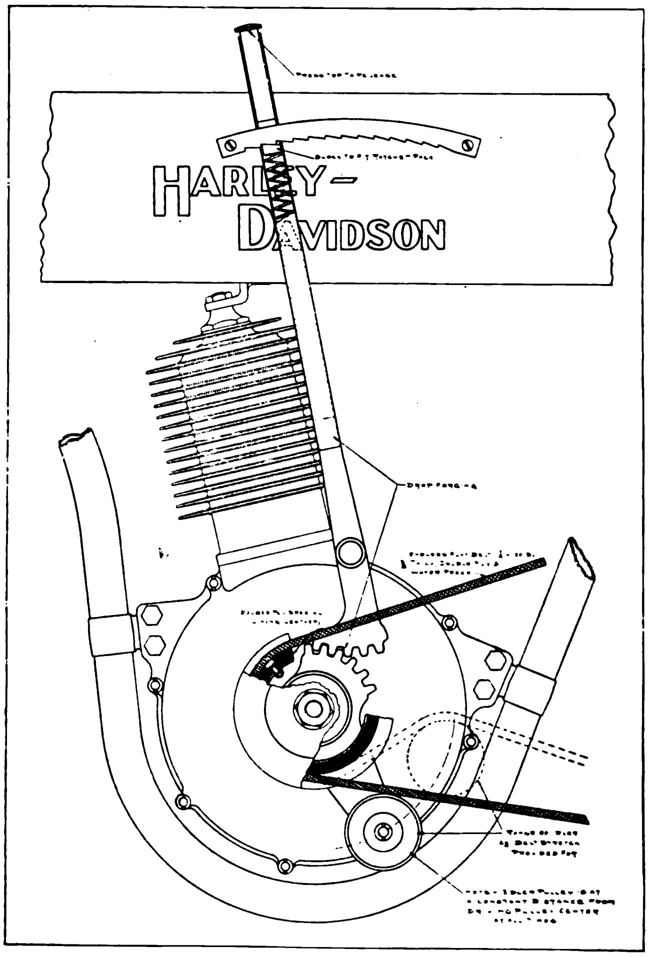
G. CARLTON HARWOOD has gone into business at Marion, Ind., and is open for an agency.

JOSEPH BUCKINGHAM, a reproduction of whose photo appears herewith, is now in charge of the motorcycle sales department of the Weaver-Ebling Automobile Company, 2230 Broadway, the metropolitan agents for the Harley-Davidson. Mr. Buckingham has done some racing on a 5 Indian, upon which he has won two first, two second and two third prizes.

Frink Obtains Two Coast Agencies.

C. M. FRINK, who for four years has been associated with C. E. Bryant handling Wagner motorcycles at 645 South Spring street, Los Angeles, has secured the California agency for Wagner and Motor-Reve motorcycles, and has opened up at 831 South Olive street. He has one of the finest salesrooms and best-equipped places in the city, and will carry a full line of parts and accessories. Mr. Frink is the Pacific Coast Vice-President of the F. A. M.

A. H. PATTERSON, who has been manager for several years, has purchased from F. A. Baker & Company their Brooklyn branch at 1080 Bedford avenue. Mr. Patterson will operate the branch in his own behalf and continue to handle, as Baker's sub-agent, the Indian motorcycle and Pierce bicycle.



Harley-Davidson Idler Graphically Described.

YOU CAN'T OVERLOOK THE M. M.

in making your selection this year. The M. M. is so positively good that it compels attention everywhere. At the Boston Show the M. M. Booth was the center of attraction. There are so many features about the 1910 models that appeal directly to you, the rider, that you can't afford not to "Compare the M. M."

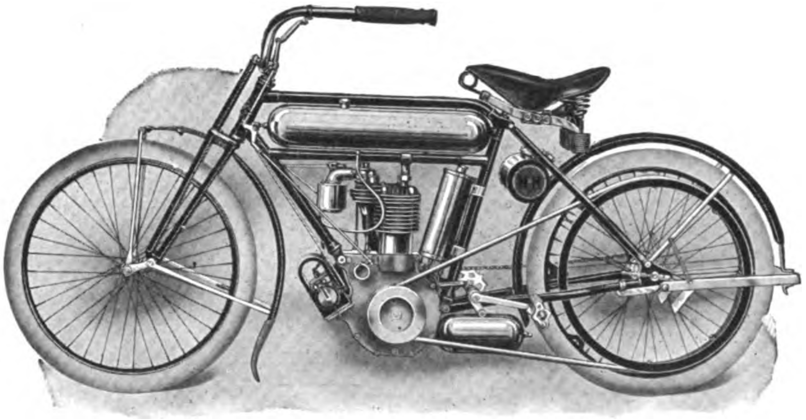
That's what we ask riders to do—"Compare the M. M."—with any other machine no matter where it is made, and if you know motorcycles we'll guarantee you will find more value, more motorcycle dollar for dollar in the M. M. When you buy an M. M. you are getting value received—one hundred cents worth of motorcycle for a dollar every time.

Get the M. M. catalog—visit our nearest branch or agency—"Compare the M. M."—and then look at the prices. We're talking motorcycles first, mind you, quality motorcycles, and prices are secondary. But, you'll find M. M. prices mighty satisfactory.

AMERICAN MOTOR CO., 716 Centre St., Brockton, Mass.

Member Motorcycle Manufacturers' Association

Distributors: Boston, 178 Huntington Ave.; New York, 10 W. 60th St.; Buffalo, 895 Main St.; Chicago, 2127 Michigan Ave.; Dallas, Tex., M. M. Building, So. Ervay St.; Los Angeles, 1034 So. Main St.



M. M. 4 h.p. Magneto Single. Roller bearing motor, 1⅞" valves mechanically operated, emergency fuel tank, automatic oiling system, automatic stand, etc. Price $225.

MOTORCYCLE MART

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word; two or more times, three cents per word each insertion. No advertisement for less than fifty cents. Cash with order, always.

ANOTHER DEMONSTRATION OF QUICK RESULTS

"Editor MOTORCYCLE ILLUSTRATED:

"Talk about quick and efficient advertising mediums! Last week I sent you a thirty-word 'ad.' to appear in the Mart of the issue of March 15th. I don't know what time of the day MOTORCYCLE ILLUSTRATED appeared, but at 3.30 p. m. (three hours after the paper was off the press) my machine was sold, delivered and paid for. By investing a dollar in a Mart ad. I sold my machine for $35 more than an agent had offered me IN EXCHANGE, and on the very day of the appearance of the advertisement!

"I guess that's going some. Very sincerely yours, "LIVINGSTON FOUNTAIN.

"New York, March 16, 1910."

"P. S.—Last year I spent $5.85 in advertising the SAME MACHINE in the newspapers, and failed to sell it."

FOR SALE OR EXCHANGE

FOR SALE.—Curtiss 1909 3½ h.-p., extra tire, and valves; new in August. Price, $140. M. D. Thornton, Spencer, N. Y.

INDIAN BUYER! Save $20. A 1910 twin Indian to be delivered in April. I will sacrifice it for $255. This ad will not appear again. Address Bargain, care of MOTORCYCLE ILLUSTRATED, New York.

FOR SALE.—One Pioneer, new, cost $265, will sell at $200; one New Era Autocycle, new, cost $300, will sell at $200. Milton Motorcycle Co., Cincinnati, O.

FOR SALE.—Lightweight F. N. almost new, 110 lbs., 1¾ h.-p. magneto, spring fork, metal tool-box, luggage carrier and stand, brand new tires, easy starter, good hill climber, an ideal runabout, cost $215. Reason I sell, am now living in the rough Oregon interior. Can be seen at N. S. U. Motor Co., 260 W. 76th street, New York City.

FOR SALE.—Van for Indian, cost $125, price with new tires, $50. New last season. Frank S. Bump, Binghamton, N. Y.

BEST OFFER takes brand new speedometer, lamp and generator, bullfrog horn and a Persons champion saddle; cost $12, $10.50, $3 and $10 respectively. Write C. Paulsen, 11431 Indiana Avenue, Chicago, Ill.

FOR SALE.—Four-cylinder Pierce motorcycle; good running condition; looks like new; tires O. K.; good speedometer; new Schebler carbureter; also Breeze if desired; getting 1910 Pierce; immediate delivery for $215. Herbert S. Havens, Red Hook, N. Y.

1910 INDIAN FOR SALE—Brand new at attractive discount. Write me immediately. P. S. McLean, 23d street, Y. M. C. A., New York City.

FOR SALE—One single 1907, one twin 1908, "CURTISS" motorcycles, in good running order. Best offer takes them. C. W. Henderson, Box 305, Flemingsburg, Ky.

FOR SALE.—1909 Merkel, ball bearing engine, 3½ h. p., spring frame; run about 1,000 miles; A1 condition; guaranteed; $95. Need money badly. H. H. Olmsted, Ames, Iowa.

FOR SALE.—Four-cylinder F. & N. motorcycle at a sacrifice; price, $200. Wm. MacDonald, 196 Whipple street, Fall River, Mass.

FOR SALE—Motorcycle, 3½ h. p.; must sell at a bargain; write for particulars. John Horrell, Alma, Texas.

FOR SALE—'09 3½ h. p. Magneto M. M., nearly new; must sell; bargain; write quickly. W. A. Baldwin, Box 531, Thomaston, Conn.

FOR SALE.—1908 Indian twin, fitted with '10 handlebars; low saddle position; $150 takes it. Sven Hokanson, Middleboro, Mass.

FOR SALE.—Pierce Vibrationless four-cylinder motorcycle, 1909 model, used only short time as demonstrator. For quick sale will sacrifice. Need room for 1910 models. Address "Pierce Agent," care MOTORCYCLE ILLUSTRATED.

GRIFFON MOTORCYCLES and parts, 2¾ h., $150; 3½ h., $200; 5 h., $250. Call or write for appointment to see same. G. V. Cochrane, 2 W. 125th street, New York City.

FOR SALE.—Two 1909 five h.-p. red loop frame, twin cylinder Indians, Bosch magneto; tires and engines in fine condition; one at $160, the other $180. Will ship anywhere C. O. D., subject to examination. Carl W. Bush, 51 William street, Newark, N. J.

FOR SALE.—At a sacrifice, 1909 Royal Pioneer with accessories; ridden 300 miles; guaranteed perfect condition; cost $265; sell $180 cash. H. A. Wilkinson, Ames, Iowa.

FOR SALE—1909½ Indian chain drive twin 5 h. p. magneto ignition; horn, lamp, luggage carrier, including full equipment. Machine in excellent condition; ridden less than 800 miles; tires and enamel in excellent shape; reason for selling, employed in night work. A bargain at $200; transportation charges paid. Lawrence Clark, St. Edward, Neb.

FOR SALE.—Bargain for quick buyer. 1909 Curtis motorcycle, twin cylinders, six h.-p. Engine and entire machine overhauled this month at factory. Good as new. New Bailey tread tires. New Twentieth Century light. Extra belt; cyclometer; two extra gear wheels for speeding. Fully equipped. Reason for selling, will buy automobile. Price, $170. Answer quick if interested. E. M. Bloom, Troy, Pa.

REWARD—$25.00; Indian motorcycle stolen; green loop frame; 1909 model twin 5 h. p.; magneto chain drive motor No. 20A642. Norman Niebergall, 660 Wall street, Los Angeles, Cal.

MISCELLANEOUS

WANTED—Capital to manufacture up-to-date motorcycle and aeroplane engines; by a mechanic who has made a thorough study of the foreign practice in light engine construction, and who has had unlimited experience in motorcycle and automobile manufacture. For particulars address "Capital," care MOTORCYCLE ILLUSTRATED.

WANTED.—A Motorcycle, condition no object if cheap. Wolke Cycle Co., Louisville, Ky.

WANTED.—Motorcycle; preferably Indian or N. S. U., with or without Tri-Car Attachment; 5 h.-p.; good condition; 1908, 1909 or 1910 model. Desire to pay one-half cash and balance in one month. References given. J. A. Barrows, P. O. Box 505, Schenectady, N. Y.

WANTED—Tandem attachment for motorcycle. Supancig, 257 West 125th street, New York City.

AGENTS CARDS, ETC.

ARE you wanting an English motorcycle? You know they want a lot of whacking. We shall be pleased to quote you for a machine delivered duty free upon request. Maudes Motor Mart, 136 Great Portland street, London W, also at Powell street, Halifax, England.

WANTED—Motorcyclists to know that we carry a full line of spare parts for "CURTISS," "ROYAL PIONEER," "R.-S.," and "INDIAN" Motorcycles; as well as the best variety of highest accessories manufactured. Reliable repairing done on the premises. Tiger Cycle Works Co., 782 Eighth Avenue, New York. 'Phone, 1268 Bryant.

MOTORCYCLES thoroughly overhauled and repaired; agents for Thor and Excelsior motorcycles; supplies and sundries. Brazenor & Ruderman, 1041 Bedford avenue, Brooklyn, N. Y.

EXCELSIOR AND HARLEY-DAVIDSON motorcycle riders—Equip your machines with 1910 valve silencer, postpaid with full instructions, fifty cents. Automatic Machine Company, 50 North Pennsylvania street, Indianapolis Ind.

SECOND-HAND M. M. BARGAINS—Exhaust Whistles, Hand Idlers. M. M. Branch, 895 Main street, Buffalo, N. Y.

SECOND HAND BARGAINS.—Any make of motorcycle; all machines in good condition. Parris, 2208 N. Broad street, Philadelphia, Pa.

IF IT IS a second-hand machine you want, write to A. D. Cook, 111 Monroe avenue, Rochester, N. Y.; Curtiss Agency.

BARGAINS in accessories. Always on top. We have the largest stock and lowest prices in America. Write today for catalogue. Motorcycle Equipment Co., Hammondsport, N. Y.

FOR SALE—Three 1909 M. M. Magneto specials, $100, $125, $150. Kobbe, 150 Main street, New Rochelle, N. Y.

WANTED.—A Live Agent for Tourist Two-Speed Motorcycle,

and K. & R. two-speed gear. No pedals: starts with a crank. Can be applied to any BELT-DRIVEN motorcycle. For information address Post Motor Agency, New Canaan, Conn.

Kindly always mention the paper when writing to advertisers.

The Tread of Heavy Gauge—STRENGTH
The Heavy Corrugation—ANTI-SKID
The Perfectly Fitting Bead—SAFETY

COMBINED IN

Diamond

Motorcycle Tires

ARE A POSITIVE ASSURANCE OF

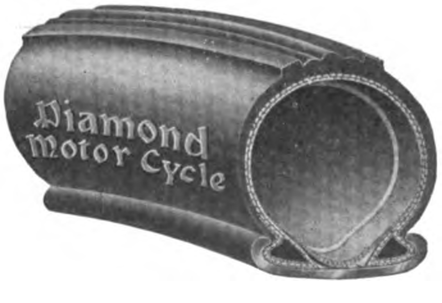
Motorcycle Tire Efficiency

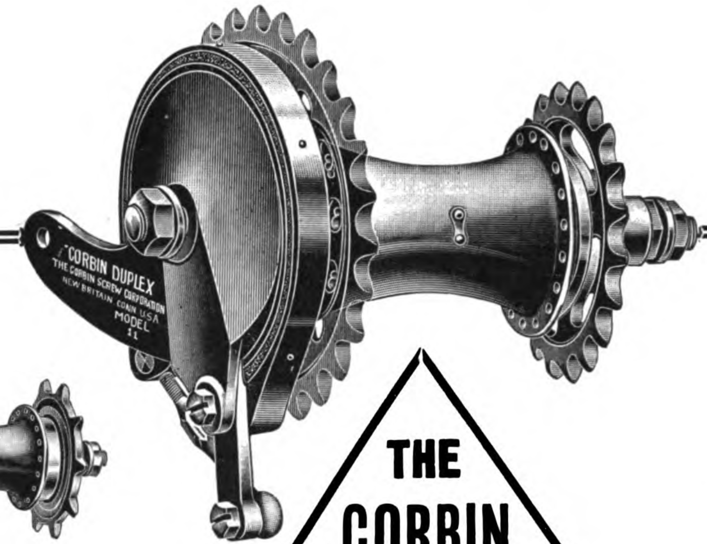
USERS KNOW

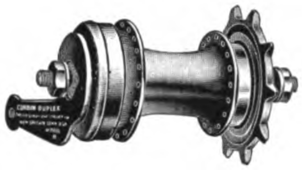
Special Motorcycle Tire Catalog upon request

BRANCHES AND AGENCIES IN ALL PRINCIPAL CITIES

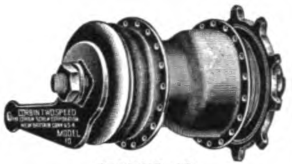
The
Diamond Rubber Co.
AKRON, OHIO




CORBIN DUPLEX
THE CORBIN SCREW CORPORATION
NEW BRITAIN CONN. U.S.A.
MODEL
11


CORBIN DUPLEX

MODEL 8.


CORBIN TWO SPEED

MODEL 10.

THE
CORBIN
BAND BRAKE

NOT AN EXPERIMENT BUT A PROVEN SUCCESS, THE

CORBIN

BAND BRAKE

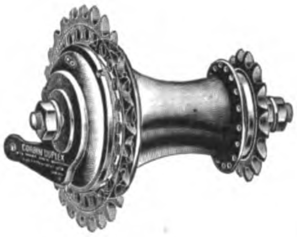
For Belt or Chain Drive Motorcycles is Superior to All Others in

Principle, Strength and Reliability

C-O-R-B-I-N Spells Both Quality and Workmanship

WAREHOUSES.

106, 108, 110 Lafayette Street, New York; Northwest Corner Eighth and Arch Streets, Philadelphia, Pa.


CORBIN DUPLEX

MODEL 9.

AGENTS AND RIDERS

Handle and Use a Brake Whose Success Has Been Demonstrated by Thousands. Quotations on Request.

THE CORBIN SCREW CORPORATION

LICENSED COASTER BRAKE MANUFACTURERS

THE CORBIN SCREW CORPORATION OF CHICAGO, 107-109 Lake Street, Chicago, Ill.

NEW BRITAIN, CONN., U.S.A.

The Minneapolis

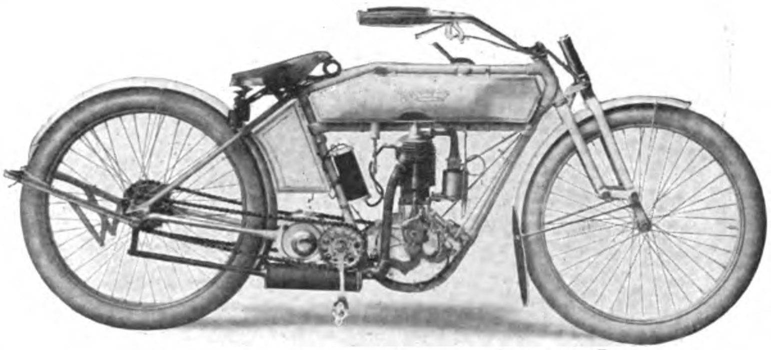
The BIG 4

Rides Like a Pullman Abundance of Power

The Two-Speed with a Reputation. Independent friction clutch on motor with the control on handle bar.

The SENSATION of the SEASON

Ride the Two-Speed Big 4 and be ahead of the game.



MODEL "K" TWO SPEED. THOR BIG 4 MOTOR

Minneapolis Motorcycle Co., 517 South 7th Street
MINNEAPOLIS, MINN.

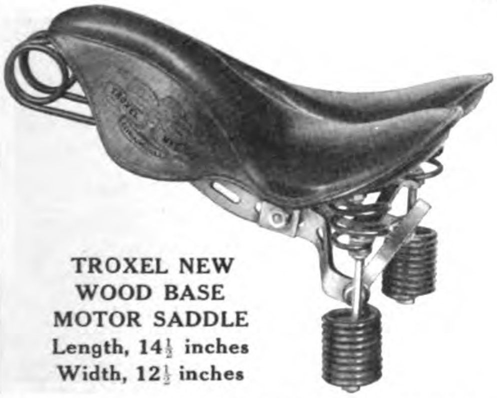
THE MOTORCYCLE SADDLES THAT TROXEL MAKES

Just Compare with Others and be Convinced They Are the Best

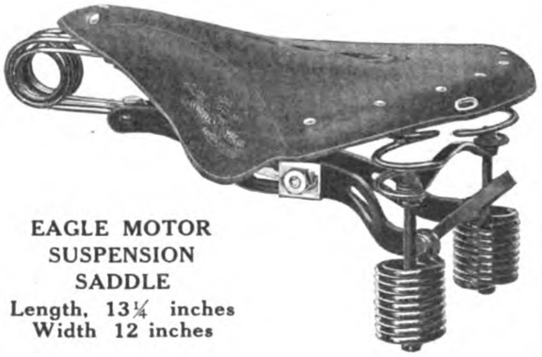
TROXEL SADDLES Are in the Lead

ON ACCOUNT OF

QUALITY
WORKMANSHIP
FINISH and
BEAUTIFUL
DESIGN



TROXEL NEW
WOOD BASE
MOTOR SADDLE
Length, 14½ inches
Width, 12½ inches



EAGLE MOTOR
SUSPENSION
SADDLE
Length, 13¼ inches
Width 12 inches

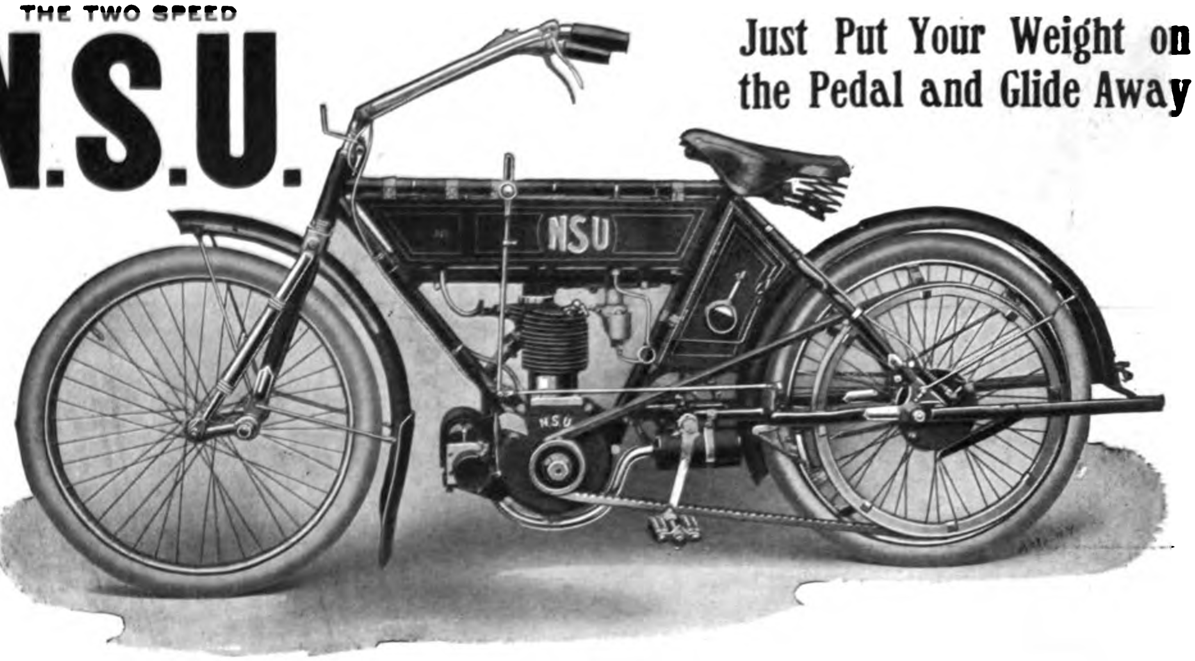
Your motorcycle will not be complete without one of these saddles. The TROXEL MOTOR SADDLES cost 25% more for HIGH-GRADE MATERIAL than any others on the market. Why not have the best?

THE TROXEL MFG. CO., Elyria, O., U. S. A.

THE TWO SPEED

N.S.U.

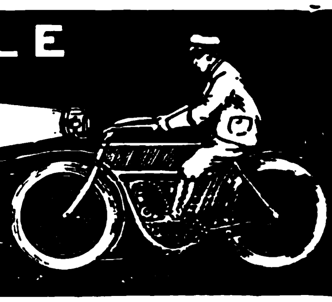
Just Put Your Weight on the Pedal and Glide Away



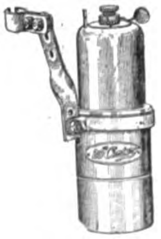
NOT alone considering the mechanical perfection of the N. S. U., but the ease of handling, the ease of starting, the comfort, the feeling that you've got your money's worth should prompt you to select THE WORLD'S BEST—the two speed N. S. U. Our new catalog "M," out today, should be in the hands of every motorcyclist—it's instructing and most interesting.

N. S. U. MOTOR CO. Members M. M. A. **206 West 76th St., New York City**

THE 20TH Century MOTORCYCLE HEAD and SEARCHLIGHTS



ARE YOU SEEKING A LIGHT?



Here is the Generator with Brackets.

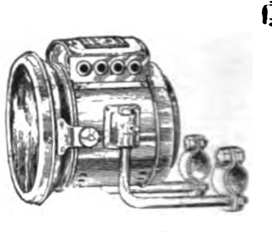
If we could only show you our brackets! They are very simple but also very wonderful.

GENERATOR WITH BRACKETS SHOWN ATTACHES INSTANTLY TO ANY MOTORCYCLE

(Except the Pierce, for which we have a fork side bracket.)

LAMP WITH BRACKETS SHOWN ATTACHES INSTANTLY TO ANY MOTORCYCLE

ALL YOU NEED IS A WRENCH AND LAMP AND GENERATOR MAY BE FITTED IN A MOMENT



Here is the Lamp with Brackets.

THE LIGHT THAT NEVER FAILED

19 Warren Street 20th Century Mfg Co **NEW YORK**

R-S R-S

Mr. Agent—Read Why

R-S MOTORCYCLES SELL

SO READILY AND WHY IT PAYS TO BE AN "R-S" AGENT IN ANY TERRITORY

FIRST—We are offering the rider through you, Mr. Agent, more Motorcycle value for his money than he can buy from the agent of any other make of Motorcycle; in fact, we are offering him America's Best Motorcycle at the price of "any old make." The "R-S" is "tried and true" and we are satisfied we have the Best and can prove it by 1910 riders' unsolicited testimony.

IT PAYS TO ADVERTISE!

SECOND—We are advertising "R-S, America's Best Motorcycle," to 56,669,732 readers annually, in a National Advertising Campaign, so extensive that there is not a city, town, or hamlet in the U. S. but what receives the message monthly. Viz:

" R-S IS THE BEST AND WHY"

Last year nearly 25,000 inquiries were referred by us to *our agents* and many of them are satisfied "R-S" riders today and they were sold by our agents, as we send *all* inquiries received from our agents' territory to our agents to attend to.

Finally, we give our agent *the best* to sell, then help him sell it. Do you want to be an "R-S" Agent?

There's a little unoccupied territory left.

READING STANDARD CO.

R-S **Bingaman and Water Streets** **READING, PA.** R-S

When you strike rough road you feel the difference. Ask any rider the Facts about

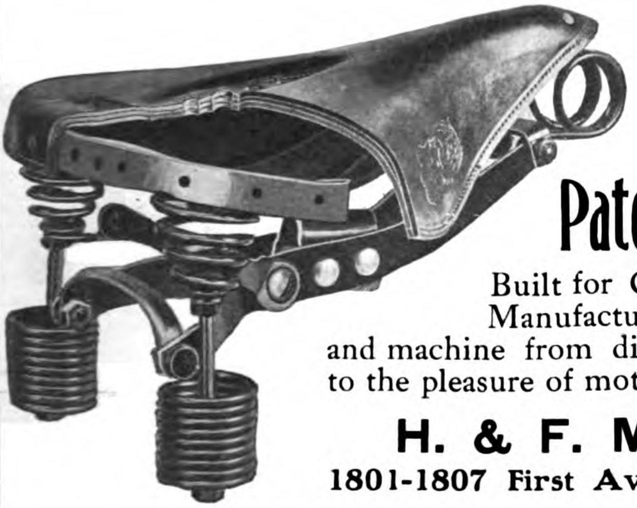
Mesinger
Cavalry No 3

MESINGER

"CAVALRY"

AND

"STANDARD"



Ask what the

Patented Shock Absorbers Do

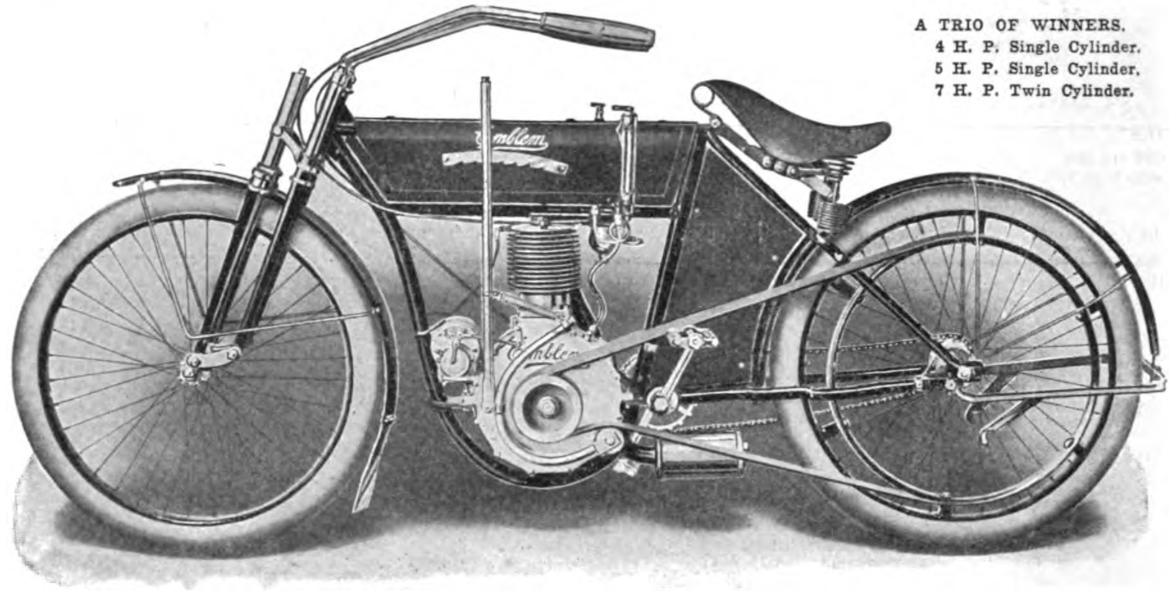
Built for COMFORT, tested and approved by many Manufacturers of Motorcycles. They save the rider and machine from disagreeable jolts, prevent side-sway and add to the pleasure of motorcycling.

H. & F. MESINGER MFG. CO.,

1801-1807 First Ave., - - - NEW YORK

Class, Power, Speed and Satisfaction are the Appealing Features of the

1910 EMBLEM MOTORCYCLES



A TRIO OF WINNERS.
4 H. P. Single Cylinder.
5 H. P. Single Cylinder.
7 H. P. Twin Cylinder.

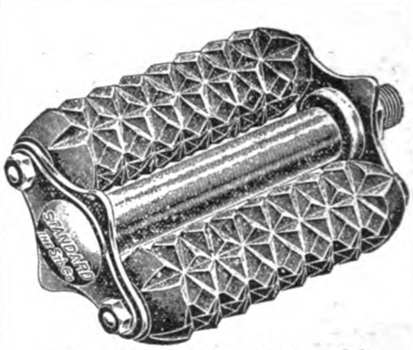
EMBLEM MANUFACTURING CO., Angola (Erie Co.), N. Y.

ALSO MANUFACTURERS OF THE EMBLEM BICYCLE.

DISTRIBUTORS.

John T. Bill & Co., Los Angeles, for California
Meredith Cycle Co., Salt Lake City, for Utah.
Alexander-Sewald Co., Atlanta, Ga., for the South
F. M. Spinning, Seattle, for Washington.
Ballou & Wright, Portland, for Oregon.
Henry Keidel & Co., Balt., Md., for Va. & W. Va.

STANDARD
MOTORCYCLE PEDALS



No. 3, Standard Motor Cycle Pedal

Wide Tread Pedals **combining** ***Comfort, Utility*** **and** ***Reliability.*** **Constructed of the** ***Best*** **materials by** ***Skilled Mechanics.***

PRICE, $3.00 PAIR

Emergency Axles, Sager Motorcycle Toe Clip, Diamond E <E> Spokes. Bridgeport and Standard Pedals. Sager and Standard Toe Clips.

Send for our Descriptive Circulars

THE STANDARD COMPANY

Torrington, Conn., U. S. A.

Empire Tires

WEAR LONGEST

Empire molded motorcycle tires are extra heavy and extra strong. They are made to give proper service on the heavier and faster motorcycles now being generally made. The best quality of Sea Island fabric is used—closely woven, of the same type as used in automobile tire construction. High class rubber is used throughout, which will give great wear and withstand great abuse.

CORRUGATED TREAD TIRE

This design will aid greatly in preventing side slipping, without detracting from the resilience or easy-riding quality of the tire in straight riding.

The Checkered Tread is the best non-skid tire ever offered for motorcyclists' use. It is very handsome in appearance. The rubber used in the tread is of a composition that gives the largest possible service. One of these tires ought to be on the rear of every motorcycle, the year around, as a guarantee against dangerous side slips.

EMPIRE TIRE COMPANY
TRENTON, N. J.

1910 PITTSFIELD 1910

SPARK COILS, SPARK PLUGS, SWITCHES, TIMERS AND DISTRIBUTERS AND MAGNETOS

MADE IN AMERICA HAVE NO SUPERIOR IN THE MARKET

The following testimonial was recently received by the Pittsfield Spark Coil Co., unsolicited.

"Columbus, Ohio, Oct. 11th, 1909.

"PITTSFIELD SPARK COIL CO.,
"Dalton, Mass.

"Gentlemen:—

"I think you will be interested to know I am using the best coil "PITTSFIELD," on my run from San Francisco to New Orleans and New York.

"I have covered 5,763 miles, 2,022 on railroad cross ties, and have had a terrible trip. Have been out thirty-seven days and had no ignition trouble. Your coil has stood unreasonable endurance, exposed to water, heat and cold in many States.

"I am an old-time rider and one who knows a good thing.

"Yours truly.
(Signed) "H. F. MERIWEATHER."

Magneto Spark Plug

A Line of Pittsfield Goods is carried by H. V. Greenwood, 166 Lake Street, Chicago

Write today for particulars, catalogues, price lists and instructions.

PITTSFIELD SPARK COIL CO., Flansbury Ave., Dalton, Mass.

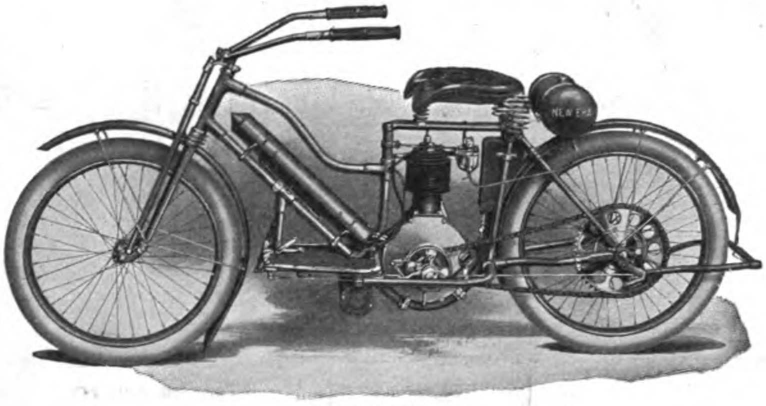
Sales Representatives: **New England,** W. J. Connell, 36 Columbus Avenue, Boston. **Atlantic States,** Thomas J.Wetzel, 17 West 42nd Street, New York. **Central States,** K. Franklin Peterson, H. V. Greenwood, 166 Lake Street, Chicago **Michigan.** L. D. Bolton, 319 Hammond Building, Detroit. **Pacific Coast,** The Laugenour Co., San Francisco.

A NEW ERA IN MOTORCYCLING

was begun when

The New Era Auto-Cycle

made its appearance



Patent Pending.

It marked the beginning of *REAL* practicability and comfort.

Its long, low frame and spring-suspended, upholstered form seat and footboard (instead of pedals) makes it available for all ages and sizes and conditions of mankind; its two-speed transmission makes it master of any and all hills and renders possible the slow pace so necessary to safety and comfort on rough country roads and crowded city streets; its free engine (engine started by a crank like an automobile) makes it possible to start ANYWHERE from a standstill and without even "jacking up" the machine. Lots of these ideas are being and will be copied, but don't you pay for manufacturers' experiments. You don't have to do so when the New Era offers them in perfected form.

"Dear Sirs: In regard to inquiry, can say that the New Era Auto-Cycle is much beyond my expectations. I purchased my machine April 11, 1909, and up to the first of the year 1910 I had ridden something over 10,000 miles, and have a good machine yet. For your work or any other, racing excepted, I would not give one 'NEW ERA' for a car load of other makes for everyday use. Mud, snow, hills, level ground and good roads are all the same to the 'NEW ERA.' I am in the fire insurance business and use my machine in all kinds of weather and on all kinds of roads. Yours,
"Greenville, Ohio, Feb. 18th, 1910. O. P. McGRIFF."

Write for advance circular and agency proposition.

The New Era Auto-Cycle Co.
No. 22 Dale Ave. Dayton, Ohio

There is no good reason for riding on a stiff, hard motorcycle tire

when you can secure more mileage, more elasticity, and far more enjoyment by riding on

The New White Tread Motorcycle Tire
made by **MORGAN & WRIGHT**

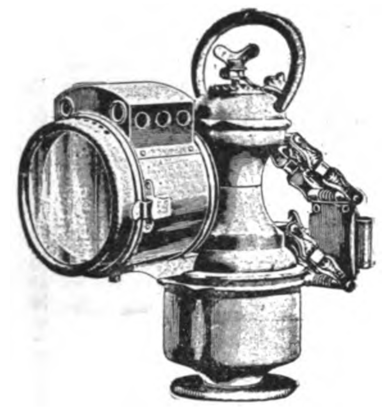
Look where you will, pay what you may, you can get nothing better in motorcycle tire construction. Specify them on your machine for the coming season. Your manufacturer will be glad to equip them.

MORGAN & WRIGHT : : : : DETROIT

Mr. Dealer! Our Goods Will Help To Increase Your Business

They will make friends for you. Motorcyclists who know that you handle our line will frequent your place to see the new goods. Weare the largest importers of motorcycle accessories in this country and the first to import new novelties. You have no idea how much difference our goods will make on your trade. Suppose you write for our trade discounts.

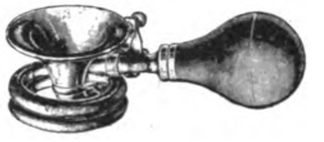
COMBINED LAMP AND GENERATOR



A combination of lamp and generator that is better than any ever devised for motorcycles. Lamp has a mangin mirror lens that projects a powerful light. Generator is very simple in operation. Complete outfit weighs only 23 ounces. Bracket on any motorcycle will fit it. Supplied in nickel only.

No. 88. Price, - - - - - $5.00

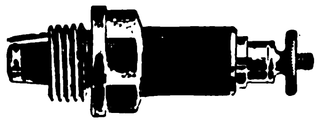
TRIPLE TWIST FROG HORN



Used mostly on motorcycles, runabouts, and on rear of tonneaus. Triple-twist construction produces a deep penetrating tone. Supplied in nickel or brass.

No. 10, Bell 3¼ ins., Price, - $2.25
No. 11, Bell 4 ins., Price, - 3.00

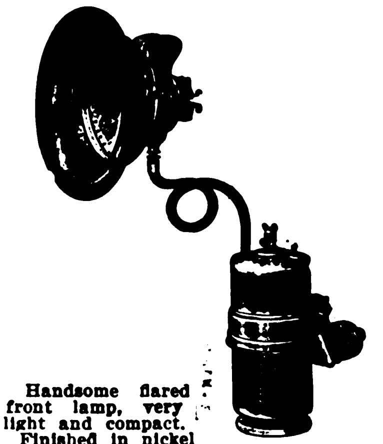
MICA MOTORCYCLE PLUG



Constructed from amber mica, with composition platinum points, ensuring positive spark.

No. 160, ½ inch and Metric. Price, 75c.

MOTORCYCLE LAMP SETS



Handsome flared front lamp, very light and compact. Finished in nickel and with nickel fittings. Interior of lamp highly polished, projecting a brilliant light. Generators are very simple in operation.

Set 55A and 55B Lamp 5 ins. diameter, 4½ ins. depth, and generator height 5½ ins., diameter 2½ ins.

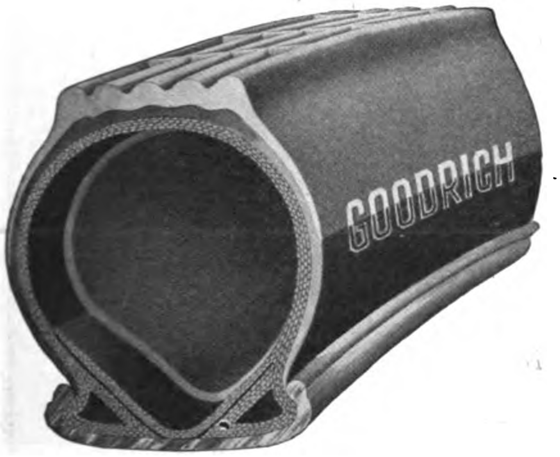
Price, Complete, - - - $6.50

SEND FOR OUR NEW CATALOG AND TRADE LIST

THE MOTOR CAR EQUIPMENT CO., 55 Warren St., New York, N. Y. **Wholesalers, Importers and Manufacturers**

THE GOODRICH WHITE HEAVY TREAD

Motorcycle Tire



¶ The Shape of the Tread *distributes wear evenly.* No single corrugation gets all the rub, leaving the part of the tread most used without a preventive of skidding.

¶ The Tread has a *third more rubber* than any other make.

¶ It has *resilience* and *elasticity.* "The ridges bite in grip the riding surface and *prevent skidding.*"

¶ *Four Plies of Fabric*—one more than any other make—guarantee durability.

¶ For Enduring Wear "The Goodrich White Heavy Tread Motorcycle Tire is a Motorcycle Tire built like an Automobile Tire."

THE B. F. GOODRICH COMPANY, Akron, Ohio

The Neverout

TRADE MARK

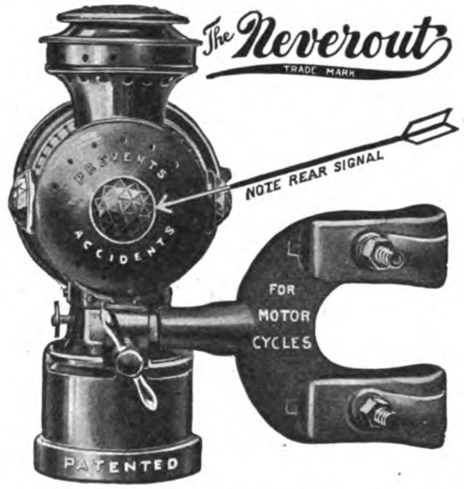
MOTORCYCLE OIL LAMP

SHOWING A RED REAR LIGHT

¶ The Neverout burns kerosene ten hours with one filling, and will stay lighted under any and all conditions. ¶ All riveted—will not rattle apart over roughest roads.

¶ Made in gun metal, brass or nickel finish

AN OIL LAMP THAT MAKES MORE LIGHT THAN MOST GAS LAMPS



Lamp Weighs Only 12½ Ounces

GUARANTEED TO STAY LIGHTED OR MONEY REFUNDED

¶ The Neverout is equipped with a PATENT GLASS COVERED REFLECTOR OF GERMAN SILVER, instantly removable, never loses its original brilliancy.

¶ The only perfect and reliable motorcycle lamp made.

¶ Double clamp bracket furnished, fastens lamp securely to fork of motorcycle. No danger of shaking off, and SHOWS RED REAR DANGER SIGNAL.

Sold by leading jobbers and dealers everywhere

ROSE MANUFACTURING COMPANY

933 ARCH STREET, PHILADELPHIA, U. S. A.

The Neverout complies with the laws of the various States and Municipalities

---

Remember!

THAT WHEN YOU ORDER A MOTORCYCLE

You have the privilege of specifying any particular make of belt you want. Since there is but one make that **positively**

Does not slip—wet or dry
Is not affected by water, oil, grease or climate
Stretches less than any other
Requires no dressing
Will outwear any other make.

You will no doubt see that the

Shoemaker
Standard
Motorcycle Belts

("V" Shape or Flat)

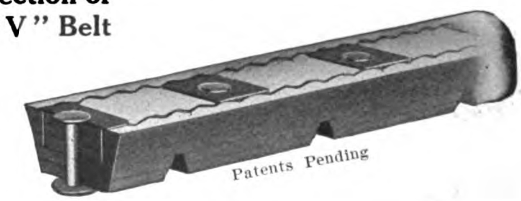
are the ones to **specify** in order to get the full measure of power, utility and pleasure you expect from your new machine.

Send for the booklet that tells about the special leather they are made of, how they are made, prices, etc.

Apex Belting Co.

240 Chestnut St.
PHILADELPHIA, PA.

Section of "V" Belt



Wagner

MOTOR CYCLES

PROVEN QUALITY

Would You ?

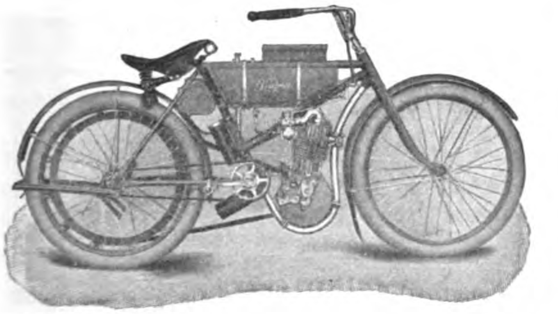
ride in the Day Coach if you could ride Pullman at the same price——

M. & W. 2¾-inch White Rubber Tires, Long Wheel-base, Equal Distribution of Weight and Correct Position of Motor make the

Wagner THE Pullman Car

of Motorcycles,

and in checking over the "WAGNER" equipment and making your comparisons don't overlook the Genuine "WATA-WATA" belt, offered as an option with the Rubber "V," because the "WAGNER" is the only American machine equipped with this high priced imported belt. The same applies to the 2¾-inch tires also.



The best 1910 proposition from the standpoint of Agent or Rider.

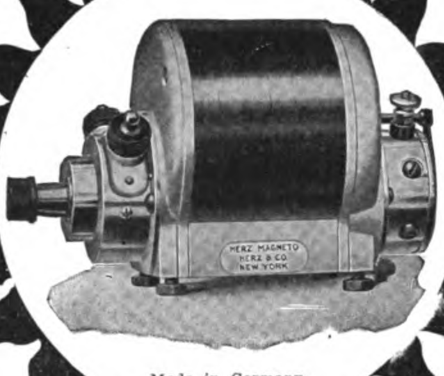
Immediate Deliveries.

WAGNER MOTORCYCLE CO.
St. Paul

DISTRIBUTORS:

Racine Boat Co., Chicago-Detroit
Jesse L. Arnold, Dallas
Geo. C. Detch Wheel Co., Indianapolis
Arnold Motor Co., Logansp't
Sou. States Motorcycle Co., Atlanta
C. M. Frink, Los Angeles

HERZ MAGNETO



Made in Germany.

On YOUR Motorcycle means a FAT, HOT ARC FLAME at the first ¼ turn of your pedal and ever after. It's the strongest, most efficient, lightest and most compact Magneto made.

Over 15,000 on American 1910 Motorcycles.

EQUIPMENT ON:
EXCELSIOR
PIERCE
THOR
YALE
HARLEY-DAVIDSON
GREYHOUND
EMBLEM
WAGNER

Thousands of Testimonials.

HERZ means absolute dependability.

Mr. E. W. Rietz says: "It's the best Magneto made. My machine will run just as slow as a battery machine and is a lot more reliable."

THE HERZ-PLUG

No Cleaning

No Taking Out of Motor

Proof Against Oil

Proof Against Soot

BOUGIE MERCEDES
HERZ & CO NEW YORK

"Bougie Mercedes" The Famous STONE PLUG

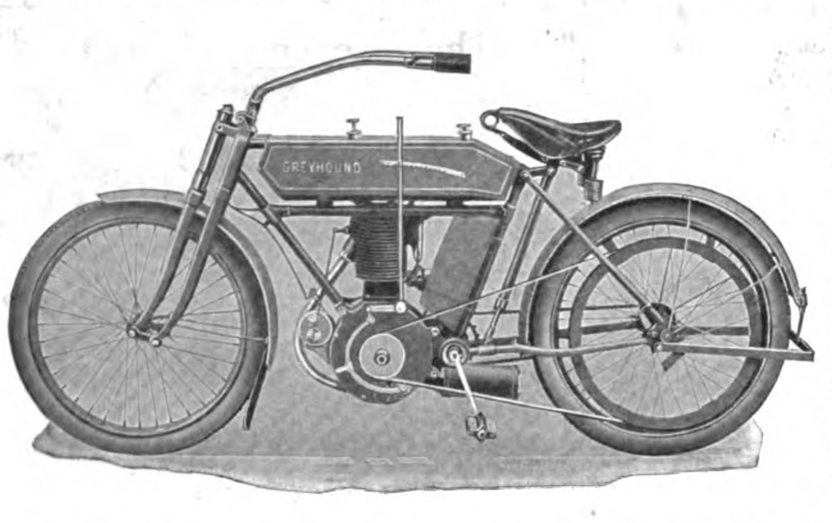
Absolutely Self-Cleaning

A Great Saving To You

The Greatest Value in Spark Plugs Ever Offered.
Absolutely Guaranteed One Year.
PRICE, POSTPAID, $1.50

HERZ & CO., 295 Lafayette St.
NEW YORK
(CIVIL ENGINEERS.)
WRITE FOR NEW CATALOG.

THE SPLENDID GREYHOUND



is splendidly fulfilling our expectation that it would be one of the "best sellers" of 1910.

It is good to sell because it is so very good to ride. With its big, husky motor, up-to-date features and its unequalled comfort equipment it is deservedly popular. We want every man who is interested in finding the best motorcycle, either to ride or to sell, to find out about the GREYHOUND. Catalog free. Write us about any motorcycle matter that interests you.

GREYHOUND MOTOR WORKS

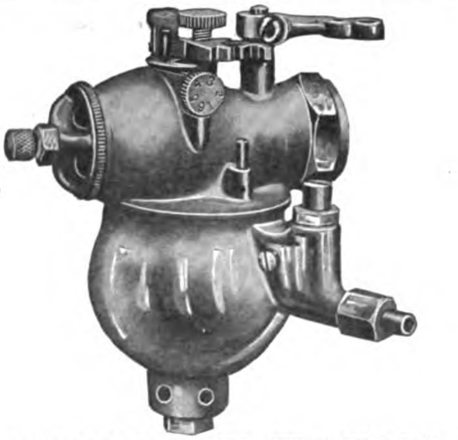
Members Motorcycle Manufacturers' Association

1459 Niagara St., Buffalo, N. Y.

SALES AGENTS: Metropolitan District—THE BROWN-DEWEY CO., 1697 Broadway, New York, N. Y. Illinois, Indiana and Wisconsin—WHIPPLE, "The Motorcycle Man," 923 W. Jackson Blvd., Chicago, Ill. California—GEORGE E. HENGERER, E. San Gabriel, Cal.

Heitger Model F 1910

Motorcycle Carbureter



¾ INCH FEMALE THREADS, CUT ½ FULL SIZE.

It has mechanical control of gasoline feed to mixture, independent gasoline adjustments for both low and full speeds, indexed adjusting screws, throttle universal, can be set to operate from either side, straight line gasoline connection, new design float chamber, can be swiveled to any position, its shape reduces splashing of liquid to the minimum, handy priming stem, improved, durable, reliable air valve, all gasoline adjusting screws indexed, and ball rachet retained, all balls and springs of bronze. ¾-inch female threads. List $10.00. Fully guaranteed.

HEITGER CARBURETER CO., Indianapolis, Ind.

208 WEST SOUTH STREET

TWO BATTERY COIL!

With or Without Plug Switch. Single and Double Cylinder Types.

The most reliable and durable coil yet. Can be put in battery case with two batteries and will run you 1,000 to 1,500 miles. Write for particulars now.

MADE BY **CENTRAL INSULATING COMPANY, Lafayette, Ind.**

The Absence of Vibration makes it pleasurable to ride

The Pierce Four Cylinder Motorcycle

Besides this Vibrationless element, the Pierce Four is replete with numerous superior features, such as:

Four Cylinder Engine Shaft Drive (enclosed) Magneto Ignition Two-speed Transmission Force Feed Automatic Oiling System Free Engine Clutch Large Tubing; no Tanks

THE PIERCE SINGLE CYLINDER

motorcycle is like the Four in smooth and easy running qualities. This model represents the most advanced ideas in Single Cylinder Motorcycle design and construction. Ask for Catalog "G."

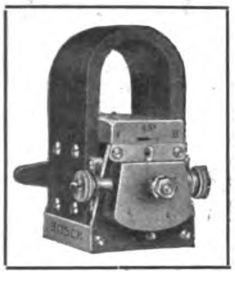
THE PIERCE CYCLE COMPANY, - Buffalo, N. Y.

MR. DEALER! Have you heard that the

1910 RACYCLE

Agency Proposition is a Clean-Cut Money-Maker? WE HAVE THE MACHINE and You the Facilities to Sell it. Let Us Get Together. Write Today for Particulars.

MIAMI CYCLE & MFG. CO. Middletown, Ohio



475,000
BOSCH
Magnetos
Manufactured
and Sold

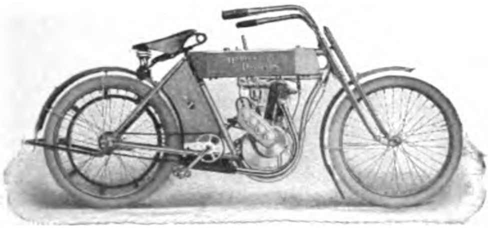
This clearly shows that Bosch Magnetos are rightly called,
"The World's Standard Ignition"

Let Us Send You a Free Copy of The Bosch News

BOSCH MAGNETO COMPANY
223-225 West 46th St., New York

Chicago Branch: 1253 Michigan Ave.
San Francisco Branch: 357 Van Ness Ave.
Detroit Branch: 870 Woodward Ave.

WHY JUGGLE
WITH THE FACTS ANY LONGER
When down in your heart you know that the
HARLEY-DAVIDSON
Is by far the BEST BUY in the Motorcycle field.



Harley-Davidson Riders are ENTHUSIASTIC MOTORCYCLISTS, and get more real enjoyment out of their machines than riders of other makes. They do not have to spend their time "tuning up" and "adjusting" their mounts in order to keep them running.

BETTER GET IN TOUCH WITH OUR
DEALER IN YOUR LOCALITY

Harley-Davidson Motor Co.
MILWAUKEE, WIS.

WARNING!

The attention of motorcyclists is called to the fact that the success of the

SPLITDORF
Motorcycle Plug

has caused a new imitation of it to appear on the market.

Users are warned that these spurious plugs are not even a good counterfeit and buyers of same will find they have thrown away their money.

For your own protection, see that the SPLITDORF trade mark is stamped on the Plug.

This is a guarantee of SPLITDORF quality.

TRADE SPLITDORF MARK
NEW YORK

SPLITDORF Motorcycle Plugs are guaranteed one year. Insist on the genuine

C. F. SPLITDORF
Walton Ave. and 138th Street
Branch, 1679 Broadway
NEW YORK
CHICAGO SAN FRANCISCO DETROIT BOSTON

Write for this book "in color"

WHOLESALE
F. F. Rick & Co.
517-519 MAIN ST. BUFFALO.
PIONEERS
CYCLES & SUPPLIES
P.O. BOX 326
LONG-DISTANCE PHONES
FACTORY 376-378 OAK ST.

Copyrighted in 1910 by F. F. Rick & Co.

Again The Winner!

THE FLYING MERKEL

WINS 4 RACES

On the Los Angeles track, March 20th, The Flying Merkel came out on top in the following races:

Four miles open professional.
Eight miles open professional.
Twenty miles open professional.
Time—12 miles, 11:45.

Ten miles amateur.
Time—9:40 3-5.

If you want *more* about The Flying Merkel and its wonderful little ball-bearing motor—write us. Ask for catalog B.

Merkel-Light Motor Co.
POTTSTOWN, PENNSYLVANIA
MEMBERS OF M.M.A.

The Only Practical Gas Bicycle Lamp

Simply perfect—perfectly simple—absolutely safe. A million satisfied users the world over will tell you so. It projects an intense white light 100 feet ahead, and cannot jar or blow out. Of course it's a

Solar

Solar lamps for a dozen years have been the standard of the world. Their best arguments are the riders who use them. The bicyclist who adopts Solars bids a final good-bye to lamp troubles. Send a postal for our catalog.

Badger Brass Mfg. Co. Kenosha, Wis. New York City

(57)

WHY YOU, MR. DEALER, SHOULD SELL

THE MARVEL

Because it has the Curtiss 4-5 h. p. Overhead Valve Motor that no single cylinder motor can equal.

Because the Frame is strong and neat in appearance. The 2½ gallon Frame tube cannot break, dent or leak. Low saddle position.

Because the value is equal or better than any $250 Motorcycle, and yet sells for only $225.

Because nothing but the best of everything is used on the Marvel, including Bosch Magneto, Eclipse Free Engine Pulley, N. S. U. Two Speed Pulley, 2½" Tires, 1⅛" V Belt, and Sager Patent Spring Fork.

Because Its Saddle position, Correct shape, Sager Style Spring Fork, Long Wheel Base and Perfect Controls make it a very comfortable riding Motorcycle.

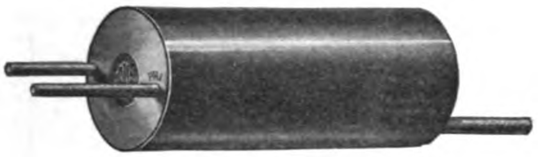
Because you can inspect each part without having to remove another part to get at it.

Because wherever the Marvel Motorcycle is seen there will immediately be a big demand for it, and you cannot afford to let your competitor sell it in your locality.

MARVEL MOTORCYCLE CO.
HAMMONDSPORT, N. Y.
Member M. M. A.

PFANSTIEHL COILS

FOR MOTORCYCLES ARE GUARANTEED FOR FIVE YEARS



The Famous Pfanstiehl Pancake system of winding, combined with a perfect balance of parts, and high grade construtcion, assures you of INDESTRUCTIBILITY, UNIFORMITY, RELIABILITY, and a strictly high grade coil at a reasonable price.

Constructed for use in connection with either 2 or 3 dry cells. Balanced to meet special requirements.

The New Pfanstiehl Motorcycle Magneto

FILLS A LONG FELT WANT

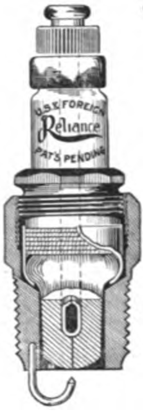
Strong and substantial in construction, though neat and compact in appearance.

Constructed by Pfanstiehl patented methods and covered by Pfanstiehl broad guarantees.

Not an experiment, but something a little more advanced than anything you have yet seen.

Don't fail to test this machine before closing contracts. Our prices will command your immediate attention and interest.

Pfanstiehl Electrical Laboratory
NORTH CHICAGO, ILL.



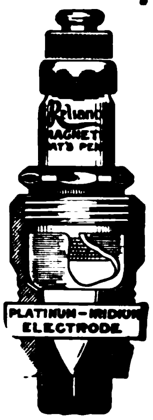
REGULAR TYPE $1.00

The Regular Reliance is the famous "Spark in Water" plug known the world over as the plug that can't short-circuit. Electrically different from any other plug—with every part accurately machined, making them mechanically as well as electrically correct.

MAGNETO TYPE $1.25

The Reliance Magneto plug is designed along the Reliance principles, but built especially for service when the current is generated by a magneto. It is especially desirable and serviceable when an excess of oil is used.

Send to-day for interesting booklet—with it we send the most puzzling electrical novelty of the day—sent for the asking.



JEFFERY-DEWITT CO.

Spark Plug Manufacturers, 230 High St., Newark, N. J.

S. & F. Stephenson, Agents for United Kingdom, 19 Canning Place, Liverpool, Eng.
Armand Frey & Co., Agents for Continental Europe, Berlin, Germany.

Prest-O-Lite
Gas Tank

As Necessary on Motorcycles As on Automobiles

A poor light is both a nuisance and a standing invitation to danger, accident and expense.

Prest-O-Lite gives steady, strong and reliable illumination. The only really economical system.

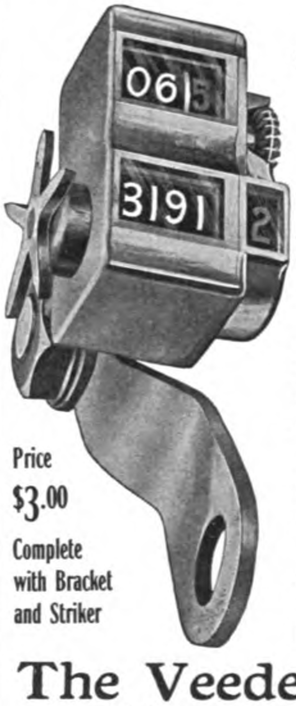
Prest-O-Lite Tank (Motorcycle Size), 12 inches long; 4 inches diameter. Weight, 7 lbs. Holds 10 ft. of gas—40 to 60 hours of light. This size is also used on automobiles, as a reserve supply.

PRICE $10. Full tank in exchange for empty **60c.**

The Prest-O-Lite Co. 246 E. South St
Indianapolis, Ind.

Branches at New York, Boston, Philadelphia, Cleveland, Chicago, Detroit, Providence (R. I.), Minneapolis, Omaha, Dallas, Los Angeles and San Francisco

4000 EXCHANGE AGENTS



Veeder
Motorcycle Trip Cyclometer

Made heavy and durable for the hard usage it receives on the Motorcycle.

Adjustable Bracket fits all makes of machines.

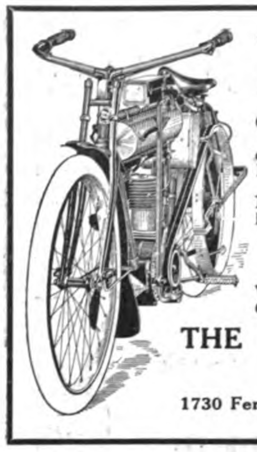
Large and strong striker.

Made for 24 in., 26 in. and 28 in. wheels.

Price
$3.00
Complete
with Bracket
and Striker

The Veeder Mfg. Co.
42 Sargeant St., Hartford, Conn.

Makers of Cyclometers, Odometers, Counters, Tachometers, Tachodometers and Die Castings



YALE MOTORCYCLES

Hold world's record for endurance. Operated at lowest upkeep cost of any. Ran 132 hours without fan or other cooling device and DID NOT OVERHEAT. LONG STROKE MOTOR; SILENT MUFFLER; COMFORTABLE TO RIDE; EASY TO OPERATE

RIDE A YALE—THEY NEVER FAIL

1910 Models are being delivered. Write to-day for agency proposition. Get our booklet, "What is Reliability?"

THE CONSOLIDATED MANUFACTURING CO.

1730 Fernwood Avenue, TOLEDO, OHIO

CARBURETOR
PULLEY
BELT
DEEP TONED
GRIP LONG RUBBER
ERIE AMMETER
DIAMOND FRAME
HANDLE BARS
GOGGLE
RACING TANK
BEST CHAIN

BARGAINS

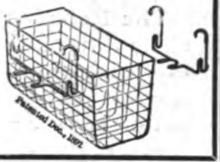
MOTORCYCLE SUPPLIES

A BIG CATALOG

now being printed. The largest one ever issued. It lists 100 new parts you should know about and 1,000 of the favorite ones at lower prices.

Write today for catalog A and begin saving $$$$

MOTORCYCLE EQUIPMENT CO.
Hammondsport, N. Y.



Dowe's Bicycle Luggage Carriers

Best Thing for the purpose ever put on the market. In use all over the United States. ¶ Can put on or detach instantly with adjustable hook. ¶ Good sellers because the riders all want them and the price is popular. Write for Prices.

DOWE WIRE & IRON WORKS
Louisville, - - Kentucky

Now's the time to advertise in

THE MART

Your readiness to sell last year's machine

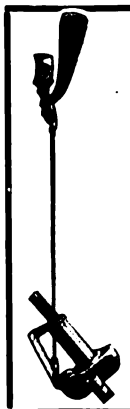
3 Cents a Word

MAIL THIS TO-DAY

E. M. ESTABROOK,
Chairman F. A. M. Membership Committee,
76 Lincoln Street, Bangor, Me.

Dear Sir: I feel that I ought to be a member of the F. A. M. We must have a national organization to promote motorcycling and to guard and care for its many interests. Please send me particulars.

(Signed)________________
State ________________
City ________________
Street ________________



The S-C-R-E-A-M Motorcycle Whistle

FITS ALL MOTORCYCLES

ONE PRICE $3.50 ONLY

It S-c-r-e-a-m-s and S-c-r-e-a-m-s "and then Some"

All whistles shipped by mail same day order is received. Price $3.50 and 10c extra for mailing.

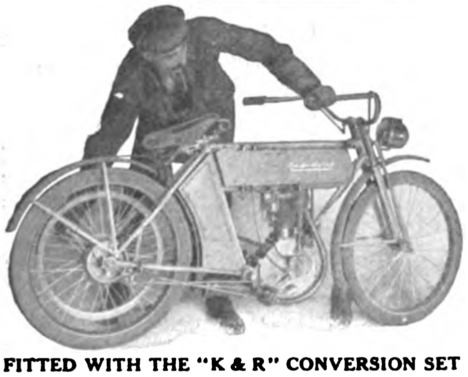
THE SCREAM SALES CO.
M. M. Building, - DALLAS, TEXAS

Duckworth Chains and Duckworth Connecting Links

Make a Strong Combination

Be Sure to Specify Duckworth.

Duckworth Chain & Mfg. Co., 40 Mill Street, Springfield, Mass.



FITTED WITH THE "K & R" CONVERSION SET
"IT'S ALL IN THE HUB" and Starts With a Crank

CALL ON OR PHONE TO OUR REPRESENTATIVE
HENRY HEYER, 1325 Bedford Ave., Brooklyn
FOR INFORMATION AND A DEMONSTRATION OF THE

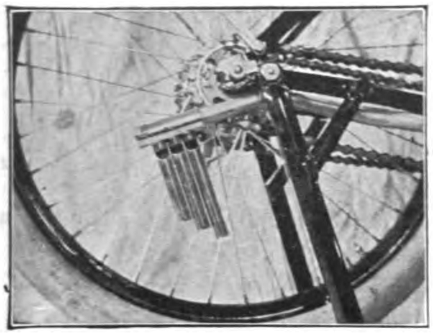
"K & R" TWO-SPEED and FREE-ENGINE HUB

Pick up any motorcycle journal and note the interest shown in the two-speed line. You will eventually have a two-speed or be a back number. Send for our "K & R" catalog and learn how, at a FRACTION OF THE COST of a new machine, you can bring your PRESENT MOUNT STRICTLY UP TO DATE with the new 1910 MODELS, by attaching one of the

"K & R" CONVERSION SETS

Have you ever taken time to calculate the tremendous strain placed on a two-speed when thrown into low gear? If so, you will readily see that there is but ONE place on a motorcycle where large and substantial parts to stand that strain can be used, and that place is in THE HUB. Working parts and wearing surfaces in the "K & R" HUB are as large as those used in some of the runabouts—will last the life of any motorcycle and GUARANTEED to stand the strain of the LARGEST engine, SINGLE OR TWIN. Catalog in detail for the asking. We can take care of a few more live agents.

KELLER & RISQUE MOTOR CO., Bridge Square, ST. PAUL, MINN.



At last, a successful chime exhaust motorcycle whistle. Only $3.00. For twin cylinder machines only. Can be fitted to 1909 or 1910 Twin Indians in two minutes; only a screw driver required. Get on our mailing list for copy of our 1910 motorcycle supply catalogue.

AGENTS FOR INDIAN AND EXCELSIOR MOTORCYCLES

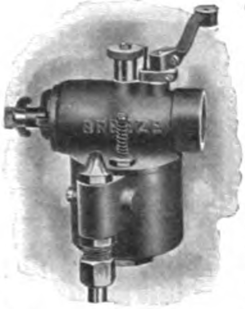
F.B. Widmayer, 2312 Broadway, N.Y.C.

Advertise Your Motorcycle Needs in

THE MART

3 Cents a Word

It Always Pays



The Breeze Motorcycle

CARBURETERS

made of polished aluminum, small parts of brass. Weigh fourteen ounces each, price $10.00. Special connections for popular machines included in price; 80 to 95 miles per gallon under road conditions. Write for special literature. Send 25 cents for our Engine Trouble Text-book. 40 pages.

Have you seen our five ounce strainer? Price, $1.00

BREEZE CARBURETER COMPANY
250-252 SOUTH ST., NEWARK, N. J.

ILLINOIS
INDIANA
WISCONSIN

AGENTS WANTED IN EVERY COUNTY

1910 Splendid Greyhound, to the front at a single bound. It sells itself—A money maker—Get busy quickly. Secure a valuable agency.

ADDRESS, WHIPPLE THE MOTORCYCLE MAN

I sell at retail in Chicago and unoccupied territory.

TRI-STATE DISTRIBUTOR
923 WEST JACKSON B'VD. CHICAGO

S. D. SHAFT-DRIVEN SINGLE

The Safest and Surest method of transmission has been applied to this beautifully designed **Motorcycle**. Write for our circular matter.

S. D. MANUFACTURING CO. 155 RIDGEWOOD AVE. BROOKLYN, N. Y.

The "STANDARD"

THE INSTRUMENT OF PERMANENT ACCURACY

ONLY MOTORCYCLE SPEEDOMETER

WITH A STEADY HAND

The Police of several cities have replaced other speedometers with "STANDARDS," because "STANDARDS" remain accurate.

Special Fittings for every Spring Fork Machine.

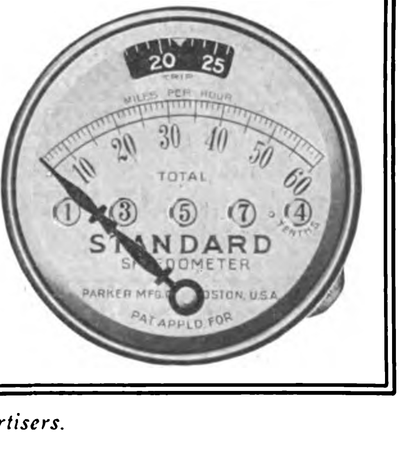
Send at once for new catalogue.

Our New Models have Trip as well as Season Odometer without extra charge, and you have a choice of either 60 or 80 mile dials at the same price.

We can now furnish fittings for the following 1910 Machines:

Indian, Excelsior, Harley-Davidson, Yale, Curtiss, Marvel, New Era, Racycle, Emblem, Reliance, American, Reading Standard, M. M., Merkel, Thor, Pierce, Greyhound, Royal Pioneer, Minneapolis, Wagner, Crouch, N. S. U., F. N. and S. D.

STANDARD THERMOMETER CO., 65 Shirley St., BOSTON, MASS.



SHAMROCK GLORIA

JUST SAY
I WANT MY
MOTORCYCLE
TO HAVE AN
S. G.
BELT
and you will see the Point of our argument after you have ridden a 1,000 miles

We repeat SPECIFY
S. G. BELT

S.G.
IS THE ONLY
Belt
that requires absolutely no attention the whole season
Write for Booklet M

N.S.U. Motor Company
206 W. 76th Street
OR
Hanover Vulcanite Company
NEW YORK CITY

S.G.
BELT
is the Pick of the Veterans. No kneading in oil, no scraping, no cleaning, no stretching, in fact, no trouble of any kind.

INSIST
ON THE
GENUINE

SATISFACTION
ENJOYMENT
ECONOMY

We Will Sell You at Wholesale Agents' Price, One AMERICAN MOTORCYCLE if we haven't an agent in your city. We want our machines introduced in every town. We also want live agents and offer the best money-making proposition on **American Motorcycles** and **American Bicycles.** Write us—do it now.

AMERICAN MOTORCYCLE CO.
1372 Wells Street, - CHICAGO, ILL.

GAS ENERGY
An interesting, illustrated, practical and indispensable monthly magazine for those who make, use or sell gas or gasoline engines. 50c. per year. Sample copy, 10c.

GAS ENERGY COMPANY
24 Murray Street, New York

M M
Motorcycles in Stock
4 H. P. Single Cylinder, $225
7 H. P. Twin " $300
Both with Bosch Magneto Ignition
GEO. P. JENKINS
N. Y. Headquarters, 8 West 60th St.

HUNDREDS OF PHOTOGRAPHS
Are Sent To Us Every Month, But We Cannot Receive Too Many Good Ones.

SO WITH GOOD
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BENEFICENT CONTROL OF RACING

Primary Object of the Organization of the Metropolitan Association of Clubs—The Meeting at Newark Last Monday Night

NO cause is so worthy as to be beyond the range of attack by carping or selfishly prejudiced critics. The Metropolitan Association of Motorcycle Clubs, organized primarily and entirely to promote the best interests of the sport in New York and upper New Jersey, has been referred to as a "racing trust." But inasmuch as those who have made use of that phrase number but two or three persons interested in promoting, with profit for themselves in view, a series of race meets in Jersey, the criticism has fallen rather flat. It is mentioned here simply because it was discussed at a meeting of the Metropolitan Association at the headquarters of the Newark Club last Sunday night. There was a very satisfactory attendance of delegates and other interested riders, and the interest shown in the association was of such a character as to greatly encourage those most intimately concerned in its welfare and most active in promoting its success.

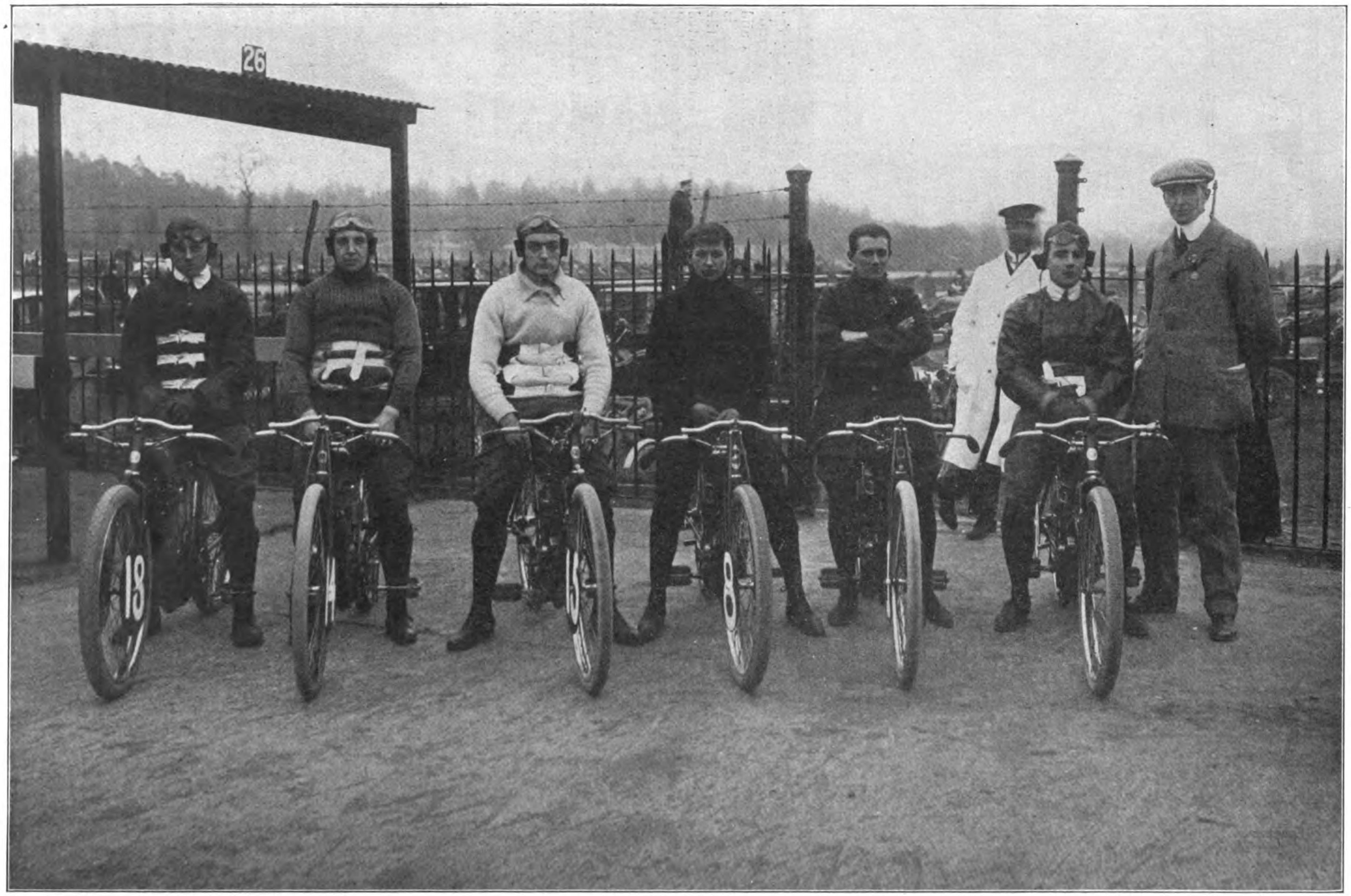
The Metropoliton Association, though young, is far from being a frail little baby in the motorcycling world. Conditions were such as to make the organization of a club union not only desirable, but even necessary. The live and thoroughly up-to-date New Jersey club immediately joined with the New York, the Brooklyn and the Long Island aggregations in giving the scheme its heartiest support, with the result that our sister State plays quite an important role in the organization. This is quite as it should be. The Greater New York racing folks were given some very valuable lessons at the Newark race meets last season, at which the Jersey boys demonstrated themselves capable of satisfying all the requirements of a first class motorcycle track program.

It seems, however, that one or two of the most active in promoting these Jersey club events are more or less disgruntled because of the fact that the organization of the Metropolitan circuit of clubs necessarily minimizes their importance in the premises. They do not seem to realize that the best interests of the greater number usually require more or less consequential sacrifices on the part of a minority. The association, by whatever name you call it, has as its purpose the controlling of the racing situation in New York and its vicinity. There is no reason for hesitating to admit this fact. For the association is a voluntary organization of the leading clubs in the metropolitan district, these clubs uniting their forces not for the purpose of pecuniary gain, but in order to pull together for the good of the sport. With the racing situation in the hands of such a combination, organized under such auspices and for purposes so far beyond honest criticism, there is plenty of justification for the enthusiasm with which the announcement of the association's plans has been greeted throughout the territory affected, and by the individual members of the clubs which have become associated with the enterprise.

* *

ANOTHER subject talked of at the Newark gathering was that of arranging to obtain suitable uniforms for road and touring purposes. It is encouraging to note that among the leading clubs this important factor in the promotion of motorcycle enthusiasm is receiving some of the consideration it deserves. At the expense of being charged with dilettanteism, we would again emphasize the fact that even though clothes do not make the motorcyclist, they do at least affect public opinion and bear very largely upon the development of popular impressions of the sport.

True, in the very nature of things, the motorcyclist rides close to the surface of the road and cannot escape getting more dust than probably any other users of the highways. That does not mean that he cannot dress to make himself fit as well as possible into his environment. The suitability of certain styles and certain colors has been demonstrated by some of the old-timers, and a few of these "cranks on clothes" are spreading the good gospel at the Metropolitan Association meetings and elsewhere in the United States. May their voices carry conviction to hundreds and thousands. Now that the leading machines all but run themselves, what could be more appropriate than to sound throughout the country the clarion call of decency in dress. The no-muffler fiend is gradually becoming obsolete, nor is the wild road hog any longer respected by his fellows. These two nuisances have been practically done away with, despite the discouraging attitude of those who were responsible for them. If success has practically crowned the endeavors of pioneers in these two fields, why cannot the sport rid itself of the disreputable, tramp-like rider who has made himself conspicuous principally through his frantic efforts to establish new records for the amount of dirt per square inch a human being can carry?



A Half Dozen Star Performers on Indian Machines in England.

J. Gibson. **A. J. Moorehouse.** **C. B. Taylor** **C. E. Bennett.** **D. R. Clarke.** **W. O. Bentley** **W. H. Wells. (Standing.)**

NEW YORK CLUB'S FIRST QUARTERLY

Fourteen Perfect Scorers in a Field of Thirty-eight.

OUT of a field of thirty-eight starters, there were twenty survivors and fourteen who made perfect scores in the first of the 1910 quarterly trials conducted under the auspices of the New York Club on Sunday, April 3. The event was run off under fairly satisfactory weather conditions, although many of the competitors fell by the wayside because of hazards they encountered in the way of sandy roads after they had passed Peekskill. From that point on to Poughkeepsie, where the turn for the home run was made, the roads were anything but ideal.

Of the fourteen competitors who scored perfectly, four were of the Merkel team, the only one which came through without having any of its members penalized. The Merkel aggregation was under the leadership of A. G. Chapple, who was one of the riders on the team, together with J. F. McLaughlin, W. J. Tuebner and H. B. Lyon. The Excelsior team took second place and the Indian quartet third. Next in order was the N. S. U. and fifth the R.-S. representatives. The fight for first place among the teams was the most interesting feature of the trial, as the G & J Tire Company has offered a $100 trophy to the team making the biggest aggregate score in the series of four events during the season. The route was along the east bank of the Hudson to Poughkeepsie, 75 miles away, and the return was made over the same roads. Checking stations were established at Tarrytown, Peekskill and Poughkeepsie, and there were two hill climbs, one on Aqueduct Hill, just outside of Tarrytown, and the other on the Annsville road, near Peekskill. Only two or three riders had any trouble in making these hills, only Thorpe and Creuder being penalized on the first, and Thorpe, Pecorella and Seery on the second. Hickey and Cox, however, failed to reach the first hill.

Summary of results:

J. F. McLaughlin, 7 Merkel	1,000
A. G. Chapple, 7 Merkel	1,000
W. J. Tuebner, 6 Merkel	1,000
H. B. Lyon, 7 Merkel	1,000
S. T. Kellogg, 4 Excelsior	1,000
A. C. Klages, 3½ Excelsior	1,000
Shelton Sturges, 4 Excelsior	1,000
F. A. Baker, 3½ Indian	1,000
Samuel Bell, 5 Indian	1,000
H. C. Mapp, 3½ Indian	1,000
Leo Schwartz, 3¼ N. S. U	1,000
Fred Voelker, 3 N. S. U	1,000
G. A. Ashley, 6 N. S. U	1,000
J. Buckingham, 4 Harley-Davidson	1,000
W. F. Stubner, 6 R.-S	982
Frank Hart, 7 R.-S	950
S. Pecorella, 5 Indian	950
Frank Seery, 5 Indian	950
S. B. Thorpe, 4 Excelsior	950
H. B. Kellogg, 3½ Excelsior	798

The following finished, but were penalized: H. B. Kellogg, late at control, 202 points; Frank Hart, R.-S., arrived at control ahead of schedule, 50 points; W. T. Stubner, R.-S., late at control, 18 points; S. Pecorella, Indian, dismounted on hill, 50 points; Frank Seery, Indian, dismounted on hill, 50 points; S. B. Thorpe, Excelsior, pedalled on hills and late at control, 50 points.

The following also started, but did not finish for the reasons stated; Alexander Graves, 3 R.-S., retired Poughkeepsie, engine seized; Gene Coughlin, 3 R.-S., out at Cold Spring, batteries exhausted; Frank Hickey, 3½ R.-S., out at Tarrytown, ignition trouble; G. Kirchoff, 3½ N. S. U., out at Ossining, tire trouble; Adolf Hoffman, 4 N. S. U., out at Cold Spring, bad roads; David Molin, 6 N. S. U., out at Peekskill, tire trouble; Albert Kreuder, 4 M.-M., out at Peekskill, carbureter trouble; Walter Goerke, 3½ Indian, out at Cold Spring, engine seized; Samuel Levin, 5 Indian, out at Ossining, broken handlebar stem; J. J. Cox, 3½ Indian, out at Tarrytown, engine trouble; Thomas Rice, 5 Indian, out at Cold Spring, chain and engine trouble; O. Hollister, 3½ Indian, out at Peekskill, chain trouble; W. A. McClelland, 5 Indian, out at Peekskill, carbureter trouble; C. E. Fleming, 5 Indian, out at Ossining, ignition trouble; C. P. Rodgers, 4 Excelsior, out at Poughkeepsie, battery and tire trouble; J. C. Wakely, 5 Indian, out at Peekskill; R. T. Wennestroem, 5 Indian, out at Peekskill; R. G. Hanna, 4 Royal, out at Poughkeepsie.

The performance of Fred Voelker on a little N. S. U. twin is worthy of special comment. Although this model is light and easily handled, it is a very fast machine and a wonderful hill climber. It weighs but 125 pounds and can do 50 miles an hour. Voelker had absolutely no trouble in negotiating the sand, which caused so much trouble to many of the competitors. In sum and substance, the work of his little mount attracted plenty of notice, all of it favorable, from his competitors in the trial.

THE PERFECT SCORING MERKEL TEAM.

Chapple McLaughlin Lyons Tuebner

* *

ENTRY blanks are out for the annual spring run on Sunday, May 1, of the New York Club. The starting and finishing points will be the clubhouse of the New York aggregation, Broadway and 101st street. There will be two divisions, the first of which will start at 6 a. m. and ride to Southampton and return. Survivors will receive handsome silver medals. Entrants in the second division will start at 9 o'clock and ride only as far as Patchogue. Bronze medals will be awarded to the survivors. The entrance fee for the first class is $2, second class $1. A special prize will be awarded to the club having the largest representation of members in the run. A number of entries have already been received by the contest committee, the first one being that of L. H. Guterman, president of the Harlem Club, and also chief executive of the Metropolitan Association. The contest committee may be reached by mail or otherwise at 2312 Broadway.

RIDING AND LEARNING TO RIDE

BY THE VETERAN, FOR THE NOVICE.

THIS is the time of the year when the new man in the ranks receives his first machine. Generally speaking, the wise novice will buy his mount from a local agent and thus save himself a lot of worry in the first place, as the agent will see that all adjustments are correct and that the machine is in good running order. Besides this, the agent is a man with experience in the ways of motorcycles and he will therefore be in a position to give many a useful tip on the upkeep and running of the particular machine he sells. Still there are cases where the rider may live many miles from a motorcycle agent, or the particular machine on which he has set his heart may not be represented in his immediate locality. To this class of novice a few tips on learning to ride will perhaps be worth picking up just at this time of the year. When the machine has been uncrated it is best to run over all nuts and bolts lightly with a wrench to see that everything is taut and shipshape. Then comes the fixing on of accessories. When doing this, remember that these will be subjected to a great deal of vibration and therefore will easily joggle loose unless they are firmly fixed. A good frictional contact for, say, a motorcycle horn, can be secured by first wrapping round the handlebar a single narrow strip of emery cloth with the emery next to the plated bar.

Starting Machine on Stand.

When one fills up with gasoline use a good strainer, and always take care to keep the strainer in a clean place free from dust, thus preventing the slightest chance of dirt getting into the gasoline tank and thence to the carbureter. Use the very best air-cooled lubricating oil and studiously avoid the use of cheap oil on any occasion. As well as seeing to the lubrication of one's engine one must thoroughly oil the bicycle parts, particularly the hubs and the coaster brake mechanism. Do not at this early date get into the slovenly habit of filling your oil can with engine lubricating oil; use the best bicycle or machine oil, as the other is only meant for engine lubrication and its constituents differ entirely from machine oil. Before jacking the machine up on the stand to start her, see that both tires are fully inflated, as in your subsequent rush to be out on the road you are almost bound to forget this very important detail. Then jack her up on the stand, selecting a level spot with a good hard base for the stand legs to rest on, as otherwise the machine may topple over. Be sure to switch on the current and turn on the gasoline. If the machine is fitted with magneto ignition the spark has to be advanced to start. Then depress the plunger of the carbureter until you can hear the "tickle" of the float. Ascertain how the levers or grips operate, controlling respectively the throttle, the advance spark and the exhaust valve lifter. Then open the throttle, seat yourself in the saddle, pedal a few sharp strokes, drop the exhaust valve lifter and she starts. Be careful to shut down the throttle and not run the engine on the stand for over a minute, as it will otherwise overheat. Now, run the machine for short periods, learning how to advance and retard the spark first of all. It would be advisable to leave the throttle nearly closed all this time, as one only uses it when more *power* is required—not speed. Remember this as your first lesson; regulate your various speeds by the use of the advance spark lever; leave the throttle alone except for hill work and emergencies.

Pedalling Mount; on the Road.

An old agent in the motorcycle trade used always to make his novices take off the belt and pedal for about one hundred yards down a good road to teach them the "feel" of the machine beforehand. In any case, the pedalling mount has to be learned first, so it is best to select a nice piece of unfrequented down grade road for the first trial. Then get into the saddle, flood the carbureter, again taking care to note that the switch and the gasoline tap are turned on. Set the throttle half way open *to start,* but immediately you have started shut it down to "nearly closed" again. Now, as the engine starts to throb, try the experiment of increasing and decreasing the speed with the advance lever. Now, get her going at a fair speed, lift the exhaust-valve and apply the brake *gradually.* Try this at various speeds until you feel confident that you can judge to a nicety the distance in which you can stop at various speeds. Then try some corner work and be very careful always to negotiate your corners at slow speed. This can be done by throttling right down and retarding the spark. I should advise the first corners to be taken with the exhaust lift up, taking care to drop the exhaust-valve before the machine has lost all its "way." Even as you grow older in the sport, always take care when negotiating corners. Remember, safety in operation rather than speed should be the first consideration in driving. Next, a fairly stiff hill should be tackled. Do not take too steep a hill at your first attempt or you may be disappointed. However, let us imagine we have a hill before us with a fairly clear approach, rising all the way with the steepest pitch at the top. As one approaches, the spark should be advanced to the limit and the throttle opened *just a trifle.* As the speed falls on the hill the throttle should be *gradually* opened and if any signs of knocking or laboring set up in the engine, the spark must be retarded just a little. If one should happen to strike a muddy patch on the first ride, drive slowly right on the crown of the road if possible and avoid sudden swerves or even the sudden dropping of the exhaust-valve, as this may cause a side-slip, with which you will no doubt make acquaintance at a later date.

For the Novice to Remember.

There is one point which should be impressed upon the novice and that is to avoid carefully all temptations of speed work until you are thoroughly versed in every driving point of your machine. Another thing to avoid is any nervous feeling, for, as a great motorcar racing man once said: "It is impossible to lose control of your car, but it is possible to lose control of yourself." The same thing applies in even a greater degree to the motorcycle rider. I will finish up this lecture to my young brother with some old time axioms which "get there" with both feet every time:

(1) It is always advisable for the novice to practice on roads where there is little traffic.

(2) Do not drive fast or attempt to stop quickly on a wet, slippery roadway, or verily thy pride will be humbled.

(3) Corners should be taken slowly and with care

(4) Do not use the throttle until it is *absolutely necessary.*

(5) Do not run the machine on the stand for long periods or if your machine boasts a free engine do not run her free for over a minute at the utmost.

(6) Keep out of the clutches of the cop.

Examples of Poor Driving.

To give an example of a poor driver one sometimes sees a motorcyclist who, instead of reducing his speed gradually, as soon as he sees the necessity for slowing down or perhaps stopping, rushes up to the point and then jams on his brake and pulls his machine up suddenly. The next moment, as soon as the necessity for slowing down has passed, he crowds on all the available power by throwing open the throttle suddenly without giving the engine a chance to get up its speed gradually. This sort of treatment will ruin a motorcycle in a very short while, as no machine or engine was ever intended to be subjected to such extremely severe shocks and strains. Many a mysterious breakdown can be traced directly back to treatment such as this. Sudden stops should be avoided just the same as sudden speeding up. Of course there are undoubtedly occasions when this becomes necessary through the exigencies of traffic, but it is the general adoption of this form of driving which does the damage.

Regard the motorcycle as a piece of mechanism to be properly cared for and properly ridden—not as a mere speed machine. Learn to drive for your own comfort—the comfort of other road users and for the sake of making your machine and the sport a lasting pleasure—not a mere speed jaunt which is inevitably followed by its weary hours of tinkering at the "blame" machine—when the blame is actually on the rider. Take this advice to heart and it will be worth to you many plunks, simoleons, iron men or washers, whatever your fraternity may be!

* *

A TIRE HINT OR TWO

EVERY motorist knows that to run on deflated or loosely inflated tires will destroy almost immediately both casing and tube. Should the deflation occur in the front wheel the machine should be stopped as soon as possible, but should the deflation occur in the rear wheel the brakes should not be applied too severely, else the casing and tube will be ground by the resistance of the wheel against the road surface.

By the observation of a very few simple yet important rules, the mileage of a tire could be very nearly doubled. In enumerating rules here, only such will be given as are drawn from a scientific standpoint and from practical test in actual service.

The air pressure in the tire should be maintained in accordance with the following table as a minimum, and this applied in the hottest weather as well as any other time:

Cross Section	Pressure—Pounds
2¼ inches	40
2½ inches	45
3 inches	55

Things to Avoid.

Avoid running in ruts, for there is no tire made that will withstand the stress resulting from ruts in country roads. Comparatively little damage results to tires from running over rough dirt roads, and this will prove a great saving when it is necessary to choose between such roads and ruts. The size and air pressure of a tire should always be in proportion to the weight of the machine and rider.

There are a number of minor elements which tend to destroy tires, such as skidding around corners, starting and stopping too suddenly, scuffing them against curb stones, striking sharp objects at high speed, etc., but by the observance of the first three principles given, namely, the maintenance of proper pressure, the avoiding of ruts, and the adoption and use of proper size tires, the cost per mile for tires would be reduced over 30 per cent. on the average.

TWO OR FOUR CYCLE?

WHILE interest in the two-cycle is undoubtedly awakening, prejudice against it seems to be as strong as ever. Of all the antipathies bearing on the motor situation, that against the two-cycle seems hardest to down, but why it should continue so bitter is hard to understand in the face of the fact that many of the objections to it for motor vehicle use have been overcome.

Today at least five manufacturers of automobiles are building two-cycle engines that leave nothing to be desired in the way of flexibility or reliability. Assuming the reader to have only a general idea of the subject, it might be well to describe briefly the difference between the two- and the four-cycle engines.

In the four-cycle engine an impulse is given only every fourth stroke of the piston. The first stroke (downward) draws in a charge of gas; the next stroke (upward) compresses it to the desired pressure at which the gas is ignited, causing an explosion which gives the impulse during the next stroke (downward). At the completion of the impulse stroke a valve is mechanically opened and the burned gas is pushed out by the piston on the fourth stroke (upward). In the two-cycle engine all these movements of the gas take place, yet in only two strokes of the piston. On the upward stroke a charge of gas is drawn into the crank case at the same time that the previous charge is compressed in the cylinder.

On the downward stroke the impulse is given which continues until an exhaust port is opened and the burned gas discharged to the atmospheric pressure. On this same downward stroke, immediately after the opening of the exhaust port, another port is opened, which allows the gas under compression in the crank case (taken in by the upward stroke) to be transferred to the cylinder. In the act of transference the burned gas remaining in the cylinder at atmospheric pressure is driven out under the law that no two bodies can occupy the same space at the same time.

For years the two-cycle has been the standard engine of motor boats, and thousands of them are today doing wonderful work in all parts of the world. Probably the greatest objections to the two-cycle engine were its tendency to run backward as well as forward, and the imperfect scavenging of the burnt gases. In neither direction did it originally work satisfactorily except at a steady, regular, medium speed, as required in boats. With these serious objections to the two-cycle, it is no wonder the engineers turned to the four-cycle engine in order to obtain the results desired. In spite of the fact, however, that the two-cycle was for a time almost lost sight of for the motor vehicle, some of our best engineers were at work on it, gradually overcoming the difficulties.

One has reached the result in one way and one in another. The rotary disk intake as developed by the Atlas company probably did more to overcome the problems the two-cycle engineers were up against than any other one thing. With one sweep it overcame the tendency to a vacuum in the crank case by leaving an open port during the entire up-stroke of the piston, thus giving the same action on the carbureter as the four-cycle. At the same time it made it impossible for the engine to reverse for the reason that in the opposite direction the intake port would be closed on the up-stroke.

* *

A. S. MARGASON won the five mile free for all on the Tuilleries track at Denver on Sunday afternoon, April 3. Joe Wolters finished second and D. C. Karren third. The time was 5.59. D. C. Warren, who rode a Merkel, was the winner of the five mile race in 6.14, and of the five mile event for single cylinder stock machines, the time of which was 6.15.

PREPARING FOR AN ENDURANCE RUN

First of All, Study Your Machine Until You Know It.

NOW that many an ambitious novice is looking forward with a mixture of keen anticipation and more or less fearsomeness to his first endurance run or reliability trial, let him carefully read the following tiplets, based upon the experience of a tried veteran:

Know Your Mount.

The prime essential is thorough familiarity with one's mount, which can be obtained only by riding it a long distance in all weathers. Sooner or later with the best machines there comes a period of trouble as inevitably as measles to a child. If you know your mount you will help it through its trouble swiftly and cleverly. If you do not know it you will fumble and muddle, till precious moments have slipped away. Trouble apart, most machines have their special idiosyncrasies. One new machine we bought knocked abominably on really bad hills till we had almost made up our mind to sell it; one day we found that closing the extra air a trifle cured it, and sent it storming up the heights. Another was very sensitive to its lubricating oil; it was 30 per cent. more powerful on one special oil. Another used automatically to unscrew its adjustable tappets the merest shade, and so drop about 30 per cent. of its power. Another needed the guides of its inlet valves (automatic) cleaned every 500 miles. Another had a faulty magneto, and would cease ignition without warning, and suddenly proceed again without anything being done to it. Another invariably admitted water into the petrol when rain was falling.

Hill-Climbing.

Lots of power and perfect steering are essential. A corner funker will need a very low gear; an inveterate corner funk should have an adjustable pulley capable of being screwed out to 6½ to 1, or an engine-shaft two-speed gear might be fitted as an emergency help. If there has been a week's rain and a head gale is blowing very few will get up a stiff grade outside the variably geared brigade. We have seen average amateurs fail on steep hills with low gears of 8½ to 1. Moreover, the riders must be prepared to act swiftly if they fail. There is usually no time for loitering. Great adroitness in pushing off on the gradient and good physical condition for restarting or pushing over a knuckle are often worth valuable marks.

The novice at trial riding must remember that he has not only got to cover the distance up to schedule time and climb the hills; he has also got to bring the machine through in good condition. He must keep his engine clean, nothing must be bent or broken, his lamp, horn, and tool bags must be undamaged, his compression must stand a rough test, etc., etc. All his accessories must be of the best, and before he can rely on them he must have tested them by rough road usage. Good tires and considerable dexterity in repairs are a *sine qua non.* The tools and spares must be accessible. Five minutes' waste of time over some small repair or adjustment when he is behind schedule may put his performance in the second class instead of the first. Everything must be packed so that it can be got out and replaced in the minimum time, and the right tool for each job, the special spanner, the valve spring remover, and the belt shortening outfit must be all there.

Riding Apparel.

In addition, he may have to ride for many hours at a time under conditions so awful that he would never dream of riding for pleasure, so it is wise to take a complete weather-proof outfit, which can be neatly packed away when not required. We personally prefer a light tweed knickerbocker suit, with a leather-lined reefer jacket, for fine weather, plus a pair of weatherproof gloves and a thick cap. When it rains, weatherproof leggings and short covert mackintosh must be added. Arrangements for carrying these must not interfere with swift access to tools and spares. Butt-ended tubes need very careful packing, and if a special case is bought in which to carry them and a spare belt the straps and clips must be of the strongest. Personal luggage complicates the problem, and makes a complete set of best carrier bags desirable; but in preliminary hill-climbing tests remember the machine has to carry all this load; it cannot compete in a light, stripped condition, as it would in a club hill-climb. For personal luggage, carry, in addition to a sleeping suit, brushes and a safety razor, two or three pairs of socks (the feet get wet and gritty in a long day's ride), a couple of celluloid collars, a clean shirt, and a light pair of shoes for loitering about during the evening's leisure. A day's ride in bad weather can be very tiring, and heavy clothing, always damp or dusty before nightfall, does not conduce to physical happiness.

WHY TWINS HAVE NOT DOUBLE THE POWER OF SINGLES.

SPEAKING of single and double-cylinder engines, the question is often asked why, while single-cylinder motors of 30.50 piston displacement are rated at four, and in some cases deliver as high as over 5 h., are double-cylinder motors of 61 ins.-piston-displacement never rated at over seven, and often less.

The reason is this: While it is true that the double opposed motor or a twin engine with cylinders parallel will give from 15 to 20 per cent. more than twice the power of the single-cylinder of the same size as those making up the double, the double-cylinder engine of the oblique type is considerably less efficient than a single cylinder of the same relative piston displacement.

While the double opposed or the twin engine may be readily balanced, both explosively and mechanically, the oblique engine cannot be balanced from either standpoint without considerable complication. It is also a detriment that in cooling a motor of this type through the medium of air flanges the rear cylinder is very liable to overheat and never gives the efficiency of the forward cylinder.

WHEN POOR COMPRESSION CAUSES SMOKE.

A FREQUENT cause of smoking is the fact that the engine is not altogether compression tight. It is necessary, to prevent smoking, to see that the exhaust and inlet valves, in fact all the mechanical parts, are in such shape that there is no loss of compression. If the oil is pumped into the head of the cylinder in unnecessary quantities, and there burned, smoke is the result.

BOARD TRACK FOR SPOKANE.

R. W. WYRICK, of Spokane, Wash., has been in communication with Jack Prince with a view to having him build in Spokane one of the finest board tracks in the country. A company, capitalized at $5,000, is now in process of formation and the prospects for starting work in the very near future, so as to have the track ready some time this summer, are said to be excellent.

ENCLOSING OF VALVE MECHANISM AND TAPPETS

A PRACTICE which I am surprised to observe has not yet been followed by those catering for motorcyclists is that of enclosing the valve mechanism and tappets. The necessity for this is ten times more apparent in the case of the motorcycle than in that of its big brother, the car; half a dozen reasons occur to me at once, the first and foremost being that of prevention of wear and tear of the mechanism at present occasioned by the accumulation of grit and dust on the oily tappets and valve stems. Very certain it is that half the wear of these vital parts is caused by the grinding medium thus involuntarily supplied. Then there is the vexed question of oil-slinging. Some engines are, of course, worse sinners in this respect than others, but there are two conditions under which the rider—or rather the clothes—will always suffer from this trouble until valve tappets, etc., are enclosed, viz., over-lubrication and worn guides, and when the two conditions are present together the trouble is real indeed. Again, the clicking of the valves on a cycle is far more audible—or should be, if the exhaust is properly silenced—than it is under the bonnet of a car, and, as regards appearance, there again the argument is all on our side. "What the eye doesn't see," etc., is applicable in this case; but we have to see our exposed valve mechanism naked and unashamed, and when it is smothered in a coating of dust and oil the sight is not a pretty one. Then how about the mere effort of cleaning the machine? Far easier, is it not, to wipe away just a little stray oil than get rid of the dust and oil mixture which at present defies our praiseworthy efforts at a clean-up!

I think the foregoing makes out a very good case for this innovation, and seeing the car engine suffers from none of the disadvantages mentioned above, and yet is supplied with this fitting, the plea is by no means unreasonable. I know the primary reason for their addition to car engines was the desire on the part of the makers to produce a silent piece of mechanism (this desire being turned into something approaching necessity when the Knight slide-valve engine with its attractive, quiet running came upon the scene), but as the fitting is so desirable from the point of view of protection as well as that of silence, its inclusion now becomes a necessity in these days of enlightenment and advance. And what is there in it? The whole contrivance is simplicity itself to construct, and should add nothing to the cost of the machine. The neatest method would be extension walls cast on the cylinder and protruding sufficiently to clear the valves, and upon the faced-up edges of these walls to affix a removable face plate with butterfly nuts. A possible objection to this method is that the enclosed space would be rather restricted for getting at the valves, etc. The alternative is a kind of sheet metal door, curved in shape and encircling the valves, being hinged at one end (allowing it to swing free and expose the mechanism) or totally detachable by two catches. I am having one of the latter sort made for my tri-car engine.—*Tourist in Motorcycling, of London.*

CARL HORST is planning to circle the world on a motorcycle and distribute souvenir books about Springfield, O. His project has met with considerable favor among members of the Commercial Club, and it will probably be considered at its next meeting. Mr. Horst's idea is to visit the newspapers and city officials. He believes that this novel method of advertising Springfield would be of great benefit to the city.

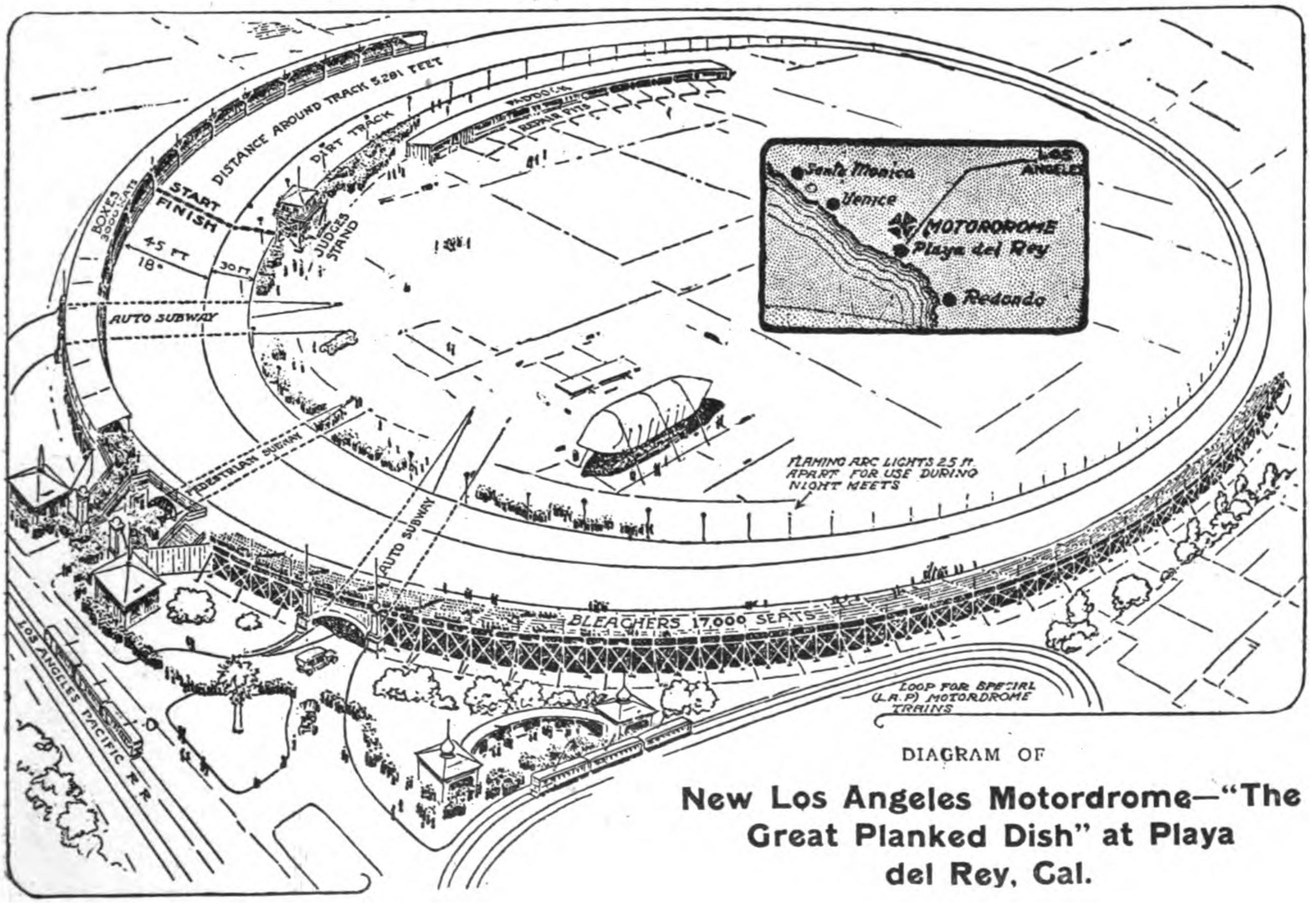


DIAGRAM OF

New Los Angeles Motordrome—"The Great Planked Dish" at Playa del Rey, Cal.

WITH THE CLUBS

HARTFORD CLUB'S NEW OFFICERS.

A LARGE and enthusiastic gathering of riders distinguished the annual meeting of the Hartford Club recently held in its new quarters, the Ely Mansion, on North Main street. A. E. Brown was the presiding officer and the following officers were elected: President, A. E. Brown; vice-president, Louis S. Rockwell; secretary and treasurer, George W. Baker. Board of Governors: A. E. Brown, Louis S. Rockwell, Geo. W. Baker, C. W. Smith, L. G. Wilcox, Bernard Biederman, Frank Meunier. Road officers were elected as follows: Captain, C. M. Carlson; first lieutenant, L. G. Wilcox; second lieutenant, Benjamin A. Rhodes; standard-bearer, M. B. Mann; club historian, T. C. Foster; club photographer, E. E. Benson.

The annual meeting also served for the formal opening of the club's new quarters, which are singularly convenient for the motorcycle fraternity and very agreeable as a sporting home. In addition to the east wing of the old mansion, in which the club's rooms are located, the members have the use of the large shaded grounds, which will be exceedingly agreeable in summer. Early in the season, the Hartford club will hold a race meeting at Charter Oak park, which will be the first of its kind in Connecticut and which is expected to draw crack riders from all over the country.

* * *

A 232-mile run from South Bend to Wabash, Ind., and return will be held April 24 under the auspices of the South Bend Club. It is intended to have competitors ride in teams of three and the promoters hope to have fifteen teams enter. The South Bend Club is progressing nicely under the presidency of L. D. Durst, assisted by the following directors: F. Andrews, G. H. Snyder, W. R. Wade, R. M. Webster and J. Smith.

* * *

DAYTON riders have just elected the following to manage their club this year: J. A. Campbell, president; Max Besse, first vice-president; J. W. Graham, second vice-president; L. M. Brennan, secretary; Carl Cappel, corresponding secretary, and W. H. Rossiter, treasurer. These officers will compose the board of control, and will have charge of all executive matters.

* * *

AT a recent meeting of the Binghamton (N. Y.) Club it was voted to affiliate with the Federation.

HACKENSACK CLUB REORGANIZED.

ON Friday, April 1, the Hackensack Club held a reorganization meeting at its temporary club room, 311 Main street, Hackensack, N. J. The meeting was called for the purpose of forming a new club and to wake the fellows up. Last year they had a club, but things were rather slow. For this meeting, however, there was a very good attendance, about twenty members being present. The club was reorganized and the charter left open for a month or so.

William Demby was elected president; Wm. Horton, vice-president; W. R. Schoonmaker, financial and recording secretary; Mr. J. A. Phykitt, treasurer, and Mr. F. Rademan, captain. Weekly runs are to be held each Sunday; also a hill climb and other contests during the season. The club was affiliated with the F. A. M., and all members are also F. A. M. members. To this paper Secretary Schoonmaker, who is also New Jersey commissioner for the F. A. M., writes:

"We are endeavoring to keep the open muffler fiend out of the club, or else reform him; and also to restrain the speed maniac; in other words, to promote the sport in every way possible.

"As State commissioner of the F. A. M. for New Jersey, I have appointed among others F. Rademan for East Hackensack; Herbert Wulling for Carlstadt, and W. C. Bingham, Jr., for Dover.

* * *

THE second annual dinner of the Concourse Club was held at the Hotel Girard, this city, the evening of Tuesday, April 5. It was a grand success in every way, many members of the clubs forming the Metropolitan Association availing themselves of the opportunity to attend, thus showing the true club spirit, to develop which the association was principally formed. Among other principles advocated by the speakers were conformity to speed regulations, closed mufflers and presentable riding costumes. There were many ladies present. The Concourse Club is to be congratulated on the excellent showing made at this affair and upon the general good feeling and fellowship which prevailed during the evening.

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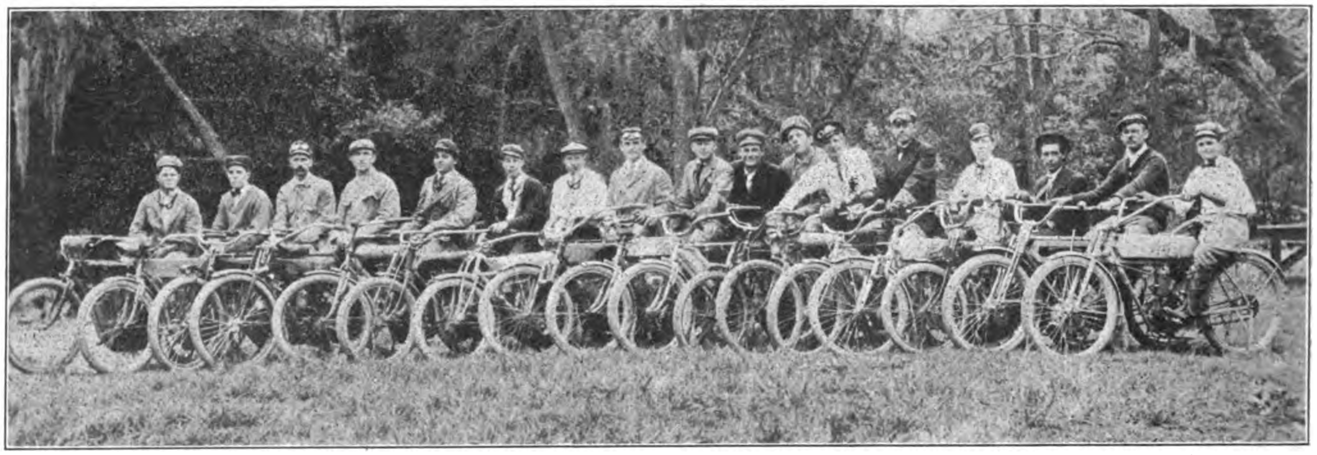
A ROAD race was held under the auspices of the Wyoming Club on Sunday, March 27. F. Brown finished first, Iwasso Tukusuma second, and Roy Stevens third, all three riding Excelsiors.



Half of the Membership of the San Antonio (Tex.) Club on a Run and Hill Climb.

AMONG THE PROGRESSIVE ONES— THE YALE CLUB OF PHILADELPHIA.

METROPOLITAN CLUBS PLAY BASEBALL.

A TRI-CLUB outing was thoroughly enjoyed by 65 members of the New York, Harlem and Concourse organizations last Sunday. The New York Club rode up to the Harlem Club headquarters, where they picked up the Harlem aggregation, whereupon these two clubs went on to Foley's where the Concourse members joined them. It was quite a spectacle for the natives of Gotham, this bunch of three score and five riders. Their destination was City Island, a short run of seventeen or eighteen miles from the city, where the feature was a baseball game between the New York and Harlem clubs. Huebschmidt did the slab work for the Harlem boys, while Chapple and Bartsch did their level best to prevent the Harlemites from encircling the sacks. However, after six innings of play the score board told this simple story: Harlem, 10; New York, 2. After the game luncheon was indulged in, three tables being provided, one for each club. Thereafter there was music, boating, bowling, etc. The outing was even more successful than its promoters had anticipated, and there will be many more before the end of the season.

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ANOTHER BAY STATE CLUB.

SOUTHBRIDGE (Mass.) now has a club. It was organized the latter part of March, the following officers having been then elected: President, Louis A. Langevin; vice-president, Octave Degrenier; secretary, Joseph George; captain, George E. Proulx.

❧ ❧

AT a recent smoker conducted under the auspices of the Milwaukee Club, plans to run a series of race meets at the State Fair Park Track were broached and enthusiastically received. A committee is to be appointed to arrange for the first races, which will in all probability be held on Decoration Day.

❧ ❧

UNDER the captaincy of Charles H. Westcott the annual "Herring Run" to Taunton, Mass., will be conducted by the Providence Club on Sunday, April 17. All riders are invited to participate. The start will be made from Exchange place in Providence at 10 o'clock in the morning.

❧ ❧

THE members of the Ohio Club will hold a three-day run just before Memorial Day. They will start from Columbus Saturday and go to Indianapolis. From there they will ride to Toledo on Sunday and back the next day. The contest is open to riders from all the small towns near Columbus.

SPRINGFIELD'S DIAMOND TROPHY RACE.

R. W. ELLINGHAM, Chairman of the Springfield Club's Racing Committee, has sent us entry blanks for the 500 mile open Diamond Trophy Race, which will feature the Memorial Day meet on the Stadium Track at Springfield. Only two machines of the same make will be permitted to start in the big race. Arrangements for this event have been completed with a view to making the conditions fair to all manufacturers who may care to compete. The committee in charge is trying very hard to make this the most successful meet of the season outside of the F. A. M. championships. They have received a lot of encouragement from interested folks in other New England cities and they have reason to believe that a number of clubs in Massachusetts, Connecticut and Rhode Island will organize runs for that day. In addition to the Diamond Trophy Race there will be a two-mile novice limited to machines having a cubic piston displacement of 50 inches or less, a five mile private owners' handicap for 61-inch machines and a five mile trade riders' handicap, 61-inch class. Entries are free. Blanks may be had by addressing W. C. Kothe, Secretary, 17 Dwight street, Springfield, Mass.

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OFFICERS ELECTED IN DES MOINES.

THE Des Moines Club has chosen the following officers: Thomas Waters, president; E. P. Anthony, vice-president; Gilbert Smith, secretary, and E. C. Maron, treasurer. Extensive plans for the enlargement of the organization are being made.

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GREENFIELD, IND.—The Greenfield Motorcycle Club has just been organized. Berlin Dieter is president; Fred O. Bidgood, vice-president; Elba Jacobs, secretary; Fred Carson, treasurer; A. A. Gappen, captain, and Raymond L. Denney, photographer.

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A SERIES of Memorial Day races are being planned by the Macon (Ga.) Club. A committee has been appointed to arrange a program and a good list of entries is looked forward to. The feature event will be a club trophy race.

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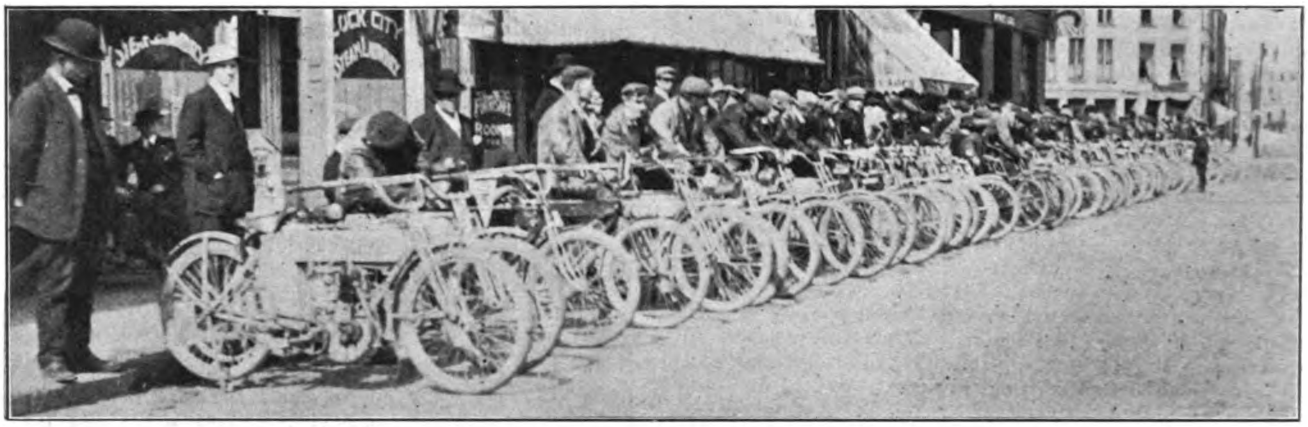
A RACE meet is to be conducted Independence Day on the La Salle Driving Park track by the Illinois Valley Club.

LARGE TURN-OUT OF BUFFALO CLUB MEMBERS FOR LOCKPORT RUN.



THE first run of the Buffalo Club to Lockport took place on Sunday, April 3, and Captain Johndahl and Lieutenant Logan were more than pleased with the amount of enthusiasm shown by the large number of members who turned out. The roads were in very good shape and practically all of those participating reached their destination on time. At Lockport a fine dinner was served at Hotel Kenmore, the club's official hostelry. The run was otherwise so successful that an eighty-mile trip to Gowanda on the same schedule is now being planned.

The contest and runs committee is working on arrangements for a two days' race meet on the Fort Erie mile track, to be held May 29 and 31. Incidentally, owing to the steady and rapid increase in the club's membership, its house committee is negotiating for larger and better equipped headquarters.

FORT WORTH HAS A CLUB.

H. A. SIMPSON is at the head of the list of officers of the recently organized Panther City Club of Fort Worth, Tex. The other officials are Walter Harrison, vice-president; F. L. Luther, secretary and treasurer; D. R. Graves, captain; R. S. Bayless, first lieutenant, and D. L. Chitwood, second lieutenant. A number of pleasure trips have already been made by the club members to Dallas, Cleburne, Weatherford, Mineral Wells and other places. In the near future the club will conduct a 200-mile run and probably limit the time of the riders to twelve or fourteen hours. This means something in Texas, particularly in the neighborhood of Fort Worth, where there are some of the finest as well as the worst roads to be found in the country. For example, one correspondent recalls a trip made by him last fall. He started out on a straight and smooth gravel road completely shaded by trees on either side, the branches of which interlaced over the crown of the road, thus forming an ideal highway. To all appearances riding conditions were perfect and the temptation to speed was very strong. On rounding a sharp curve, however, he went down a steep hill to suddenly strike sand hub-deep. His momentum carried him through, only to bring him to another hill with another curve just before the summit was reached. He repeated this experience four times during that ride.

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PRESIDENT GUTERMAN RE-ELECTED.

AT a recent meeting of the Harlem Club, L. H. Guterman was re-elected to the presidency, and the following other officers were chosen: William P. Hubschmidt, vice-president; W. L. Coursen, captain; Jack Gold, first lieutenant; J. E. Wakely, second lieutenant; R. E. Wennestroem, Jr., treasurer, and Felix Lewin, secretary. A $10 gold piece was donated by Mr. Wakely to be awarded for the purchase of accessories to the member attending the largest number of Association and club runs during the 1910 season. A pocket-book was given by Mr. Radnitz to be awarded to the man bringing in the largest number of new club members up to Aug. 1. The meeting was largely attended, thirty-two paid-up members voting.

MINNEAPOLIS CLUB HONORS STATA.

A SPECIAL meeting of the Minneapolis Club was held the evening of March 31, at which a banquet was tendered to the retiring president, A. T. Stata, who has been promoted by the company he represents to the position of manager of its Chicago branch. The banquet and entertainment were given as a slight testimonial of the high esteem in which Mr. Stata is held by the members of the Minneapolis Club. He was among those who started the organization and, as its president for two years, has probably done more to promote its welfare than any other man connected with the club. In his farewell address, Mr. Stata touched upon several important matters in connection with the 1910 program of club events. He also spoke of negotiations which have been pending during the winter months with Jack Prince, the track builder, for the construction of a board saucer in Minneapolis. Prince is expected to reach the city in the near future.

It has been practically decided to furnish a new clubhouse on the outskirts of the city, about eight miles distant from its business center, but attainable by several good roads. The club will be affiliated with the F. A. M. during the next thirty days. Although it is not yet two years old, the organization is in a fine financial condition and has a live, active membership.

* *

CELEBRATES FIRST ANNIVERSARY.

THE Poughkeepsie Club recently celebrated its anniversary with a dinner to its members at the home of Clinton G. Pearse. William Frank, Jr., was toastmaster, and filled that position as only an expert can. Harry English told how the club was started a year ago in a small way and of the fine trips made by the organization last year. Mr. Gindele spoke of the endurance runs conducted in 1909 and of the several fine silver cups awarded to members. He expressed the hope that he would be lucky enough to win another this year. The club will hold a big race meet at the Hudson River Driving Park on Decoration Day.

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ARTHUR ROSENTHAL has been elected president of the Grand Rapids Club. Joe Poisson is secretary and R. O. Chipman is captain.

KEEPING THE HANDS CLEAN.

IT is only with considerable difficulty that one working around machinery can keep the hands clean and soft, and while it is not possible for all metal workers to have hands always soft and clean, those engaged in motorcycle repairing, and those motorists who look after their machines, can preserve their hands and nails if they only take the proper precaution. One very practical mechanic had a method of keeping his hands in condition that could be adopted with excellent results as it does not involve much trouble. The outfit was contained in two old handsoap cans; in one of these was soft oil soap, such as is used for washing fine carriages, in the other powdered pumice. While this combination is not new and is a standard with mechanics all over the world, the method of application was novel. The essential part of the operation was to take the soap and rub it thoroughly into the pores of the skin and around and under the finger nails before starting the work. With a little rubbing the soap apparently disappears. After getting through with the work the hands were dipped in water, were rubbed to bring to a lather, dipped in pumice if particularly black, and then washed as in the ordinary process. The pores being filled with soap cannot become clogged with dirt, neither can foreign matter get under the nails or discolor the cuticle. Another good combination that will remove dirt without injuring the hands is bran or sawdust moistened with kerosene, used in connection with ordinary soap. The prepared handsoaps are in many cases composed of ingredients which will remove the dirt, but which injure the skin, and should not be used unless they are found to be harmless. Beware of preparations which discolor the can, as this is caused by chemical action of the dirt removers on the metal, and any substance which will attack metal and corrode it is not fit for use on the hands, unless the skin is calloused and tough and capable of resisting the alkali, and the dirt will not start by more gentle treatment.

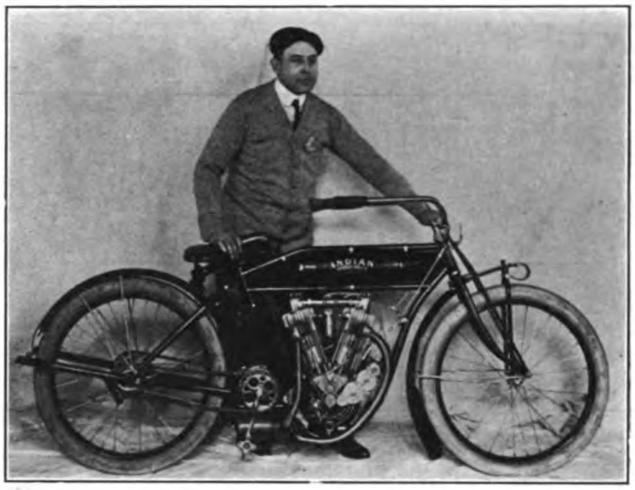
ANOTHER MOTORCYCLE ELOPEMENT.

SAN JOSE, CAL.—Dismayed by the prospect of his sweetheart being compelled to marry a wealthier man, F. N. Hall, employed as a chef in a hotel at Ramona by the father of the girl, placed her on his motorcycle, which is equipped with a tandem attachment, rushed to Los Angeles, was married there, journeyed to San Diego on the machine, and then received the parental forgiveness.

The elopement and happy conclusion are unique in the history of such affairs in this county. The bride was Miss Carrie Clapp, and her presence in her father's hostelry at Ramona soon resulted in a promise of marriage. Then Clapp found out how the affair was progressing and sought to end it by declaring that his daughter should wed a man of his own choice. Result, the elopement.

ARTHUR C. KLAGES, PRESIDENT LONG ISLAND CLUB.
Perfect Scorer in N. Y. M. C. Quarterly Trial.

WHAT MOST INTERESTS HASTINGS.



FLYING squadrons and motorcycling deputy sheriffs are the particular penchants of that well known metropolitan seller and rider, T. K. Hastings, of the firm of Hastings & Miller, of Nassau street. Mr. Hastings has made a specialty of the subject of putting sheriffs' assistants on motor driven two wheelers, and he is very much interested in a plan to have this system organized into one of country-wide extent. At the present time these organizations are merely local in their character, but Hastings looks forward to the time when they will be much more than that and when a veritable army of motorcycling officers will serve many very practical purposes in enforcing the law and bringing law breakers to terms. Technically speaking, Hastings is a "pro," that is, the F. A. M. has as yet failed to lift the ban which it placed upon him when he committed a more or less serious fault, unwittingly, in England. Whatever he may be from a technical point of view, those who know him appreciate full well that Hastings is an amateur at heart, a jovial companion awheel and an all round good fellow.

A STRANGE TRACK MISHAP.

WHILE on his travels through California, J. S. Tormey, the Pacific Coast representative of the Excelsior Supply Company, was one of the witnesses to a rather extraordinary accident on the San Bernardino track. A large number of riders were practicing at the time, among them Herb Garland, of the firm of Garland Brothers, Excelsior agents in Redlands. Garland, who was riding an Excelsior with drop bars, was rounding into the home stretch at a rate of almost a mile a minute, and owing to the fact that all but a foot strip of the track was soft, was riding very near the pole. As he straightened up for the stretch, Garland gave his machine too quick a pull and grazed the fence. The accident resulted in painful injuries to the rider. His pedal was ripped off, his shoe torn from his left foot, which was badly bruised, and his arm broken. Strange to say, however, Garland did not fall, but managed to steer away from the pole to the outside of the track, where he was taken off his machine by spectators just as he was about to keel over.

A GOOD BRAKE HINT.

BRAKES should be washed after a run through mud or dust. If this is neglected, the grit and other foreign substance picked up will cause the brake linings to wear away with undue speed.

* * *

BEESWAX makes a good substitute for enamel on rims. After heating the rims with a blow-torch, it can easily be applied. It will spread easily over the rusted surfaces.

TIPS AND TOPICS

By THE VETERAN.

IT is always a very great pleasure to examine any cleverly worked-out device. They seem to have a fascination all their own. One will often wonder, when coming into contact with some particularly ingenious piece of construction, how it is that the inventor stumbled on the idea. The device which I recently had the opportunity to look over was not really new in any way; it was merely a very clever application of an old idea. This was a low tension magneto operating mechanism on an imported Magnet. In the early days of magneto ignition, all the make and break devices were embodied in the spark plug, generally by some trip-hammer arrangement and sometimes even by cruder methods. The great drawback was a serious loss of compression at the spark plug. This difficulty was eventually surmounted by at least one well known manufacturer of magneto devices, but the high tension type had already taken a firm hold on the public fancy, so a good thing was slowly abandoned. The Magnet low tension ignition is certainly original and the make and break device wonderfully clever. The trip-hammer mechanism is operated by the piston. The plug is screwed into the side of the cylinder, not at the top, as ordinarily. The spark plug is fitted with a small projecting anvil and close to it is a bell crank lever mounted on a long swivel bearing parallel with the axis of the plug. The bell crank lever forms the hammer device. On the side of the piston head is fitted a short projection. As the piston reaches the top of the stroke the projection comes into contact with the shorter arm of the bell crank lever and this in turn brings the longer arm out of contact, thus causing the required "break' to produce the spark.

* *

Gauge for Measuring Gasoline.

THE latest from the Continent is that all gasoline entering the city of Paris is taxed about two cents a pint. That is, when a motorcar or motorcycle enters the city precincts, the authorities measure the gasoline and tax the owner for the "essence," as gasoline is euphoniously called in France. This new rule has led to much dissension on the part of owners, as the systems for measurement seem to be somewhat haphazard. An inventor has fortunately stepped into the breach and is trying to get the authorities to recognize a gauge known as the Laforce. The device is simple and looks as if it would fill the long felt need of a gasoline gauge for use on a motorcycle. All practical riders know that it would be a boon and a blessing to be able to tell at a glance how much gasoline was inside the tank. The same thing applies in a slightly less degree to the oil tank. However, the construction of this gauge is as follows: A float is embodied inside a vertical copper tube. This tube has an internal spiral groove from the base to the top and the float has a couple of projections which fit into the groove. This is set inside the tank, and as the float rises or sinks, according to the level of the gasoline, it does so with a circular motion. As long as the tube is made of fairly large diameter there is no danger of the float jamming in any way. In addition to being engaged in the spiral groove by the two projections, the float is mounted on two metal rods connected at the top and bottom by a metal plate. The rods pass through the float, allowing just sufficient play to glide up and down their length, while at the same time carrying the rods round with it as it turns in the spiral. It will be clearly seen that it is necessary only to attach an indicator needle to the revolving upper plate, uniting the two rods, and to put below it a graduated dial in order to have the correct reading of the level of gasoline in the tank. Clearly, this device is a sound, practical idea which could be used for a motorcycle gauge, although originally designed for automobile needs. Its cost is very small and its utility great.

* *

Faults in Side-car Designs.

I NOTICE that the side car combination is becoming quite popular in a few of our cities. Yet it seems to me that these side cars lack a good deal of finish and comfort compared with some I have seen abroad. The position of the passenger seems hardly to have been studied. I would not like to see a good thing condemned for lack of the designer's art. First of all, ample leg room is required. Again, the tilt of the side car has a great "say" in the success of the combination. Try wheeling a loaded barrow and you will clearly see the point. Again, a mud guard over the side car wheel is a necessity—why try to do without it? Mudguard stays need not be fitted so that they interfere with tire repairs. Foreign side cars, with two exceptions, are great sinners on this point. A neat toolbox or luggage basket could be included in the design of a side car with great advantage and convenience to the user. Yet, even "near-side cars" are evidently popular in the South. Let us hope that this popularity will last, as the charm of the two passenger combination is great and we want only a little constructional improvement in details to make the side car a lasting success.

* *

A Vapor Lock in Fuel Pipe.

ONE often comes across strange cases of mysterious stalling of an engine. Some little while ago we encountered a very puzzling example, one which had the local garage men in the guessing department all the while. The machine had an unaccountable trick of suddenly stalling when the engine was running slowly. As everyone there who knew anything about motorcycles had tried to cure the trouble and had failed, the owner was referred in the end to our little club of pseudo-motorcycle scientists. After four evenings we had about decided to break up the blame machine with a heavy hammer, when someone suggested an airlock in the gasoline pipe. With a new field for investigation, we looked over every detail carefully. The air-vent in the filler cap was as free as any imprisoned ice king, so it looked as if we were in the wrong pew. However, we decided to do away with the loop in the feed pipe, shorten the pipe and lead it away from the exhaust pipe, as it was somewhat too close. When the job was completed, strange to say, the trouble disappeared, and it has never returned. Evidently the proximity of the exhaust pipe, and the looped fuel pipe both contributed to the trouble. This would naturally cause small vapor locks to be formed in the fuel pipe and these would cut off the supply from the float chamber. Now, this would only occur when the engine was running very slowly, as was actually the case. When the engine was running fast, the more rapid flow of the gasoline naturally served to carry away the heat with the only result of accelerated vaporization and no fuel lock through vapor in the pipe. By leading the fuel pipe away from the heating influence of the exhaust pipe, we cured the greater part of the evil, and in doing away with the loop we further lessened the chance of its recurrence.

* *

Unstrained Gasoline a Bother.

TALKING of loops in the inlet pipe reminds me of a somewhat funny incident which happened some time ago. I had a machine fitted, according to the maker's idea, so the loop would prevent any foreign matter from entering the corbureter. Strange to say, with all this weighty forethought on the part of the maker, neither the top nor the bottom of the intake pipe were fitted with gauzes, as I found out very shortly after buying the machine. One day, when out for a ride with a brother motorcyclist, we stopped to refill our tanks at a local garage. I noticed too late that no strainer was fitted in the funnel and was not surprised to experience bad misfiring shortly after, followed by a complete "deathly" silence (as the daily papers say). After making the usual tests, I found that there was not a drop of gasoline in the carbureter, and, on dismounting the fuel pipe at the lower end, I discovered this was as dry as Georgia. Evidently the pipe was bunged up with something, so off she came in jigtime. Somehow, my friend was investigating at one end of the pipe as I was blowing hard into the other, with the result that he got a dead jelly fish, or something like it, right in the eye. The result was unpleasant to him, to say the least, and it cost me many a soldi for cigars to soothe his feelings.

* *

British and American Markets.

AM wondering how the Indian is going to make out in the British Tourist Trophy race this year. The machine is gaining popularity across the pond and some fairly well known British racing men are now riding it at Brooklands. In the recent one hour race at Brooklands the Indian took first and second places, but only single cylinders were in competition with it. Yet, with a stiff head wind, the winner made nearly sixty miles in the hour on the twin Indian, the best single making fifty-four miles. With a fair sized entry of Indians we ought to have a good show, and we want that Tourist Trophy badly, as it will give the sport a great boost here. Our English friends do not see that we are commercial at heart, and one of their papers gives us a severe calling down for painting the Indian's performance in the Quarterly Trials a brilliant red. One must advertise to live in the U. S. A., and our cousins on the other side do not recognize the fact that here the public must be fed upon advertisement, as they are somewhat slow to recognize the great ability of the motorcycle. The position is that in spite of the great merits of the motorcycle as a private "railroad service"—the markets in the United States are largely *local.* Our object is to form this market into one homogeneous mass, instead of its being so scattered. To accomplish this end we must advertise our sport to *show* the public *what actually can be done* with a motorcycle. The British market does not need this; it is already firmly established. We want to see the same state of affairs in America. *We shall see it,* but we want to gain this end as quickly as possible.

* *

Good for Repairing a Cylinder Blow-hole.

I SAW a very neat job done by an amateur workman the other day with a dope called Smoothon. A motorcycle had developed a small-sized blow-hole in the casting of the cylinder, fortunately below the radiating flanges. There seemed nothing to do but to return the faulty cylinder to the manufacturers before I hit on a can of "Smoothon" in a friend's garage. I examined the can and found that the legend thereon read that it would repair cracks in the casting of water-jackets, etc. I borrowed and lent it to my friend, who sent for me the next evening to view the job. There was hardly a sign to show that a blow-hole had ever been in the cylinder, and the repair has held up under running conditions for nearly a month on the road. Smoothon looks like powdered iron. To use it, all that is necessary is to mix it with water, like cement, and apply it with a knife blade or some-such-which, and the job is done! I do not know how it would stand up for, say, a cracked cylinder head. All I know is that for a time it has stood a fairly high temperature on the lower part of a cylinder, and that it has proved equally good in repairing a small crack in the water-jacket of the cylinder of an automobile, so I conclude that it deserves publicity at any rate. It strikes me that this stuff would be good for repairing a cracked crank-case.

* *

Supplying Battery Terminals.

DRY batteries, as a general rule, give little or no trouble from the time they are placed in the battery case until they are run down when, except for artificial stimulation which may be applied in a pinch, they are useless. Very rarely, indeed, happily to relate, do they give any trouble, yet there are times when they develop absolute cussedness which, unless the operator is gifted with considerable ingenuity or has learnt lessons on the hard road of experience, is particularly hard to deal with. One little stunt of an amusing variety, which has occurred in my experience is the breaking off of one or the other of the binding posts to which the terminal wires are attached, thus to all intents and purposes depriving the battery of that element for all time. But in reality such a failure need not necessarily deprive the cell of its usefulness if the motorcyclist happens to be possessed of a pocket knife and a little patience. If the broken terminal happens to be the negative one, a new connection, which will be quite as useful as the old one, may be made simply by boring a little hole in the side of the zinc casing of the battery and poking through it the end of the wire, which is then twisted over itself firmly so that it will not rattle about and thus come adrift again. If, on the other hand, it is the positive or carbon terminal which goes astray, it is possible either to notch it all around or bore a hole through it, if extreme care is used on account of the brittle material. The wire can then be secured in the same way as before. In case the pole should be broken off too near the waxen seal which covers the active material and packing of the cell, a wire may be driven through the wax at an oblique angle; of course, great care has to be taken during this operation not to split the wax, nor to break the carbon rod itself. The proper way to do this job is to very carefully drive the nail through the wax and to leave it just touching the carbon.

TIMELY TOPICS

A HUSTLING EMPIRE STATE CLUB.

A LITTE over one year ago the motorcyclists of Poughkeepsie organized the Poughkeepsie Motorcycle Club. Starting with a small membership, it is now rapidly coming to the front. In February, 1910, the club associated itself with the F. A. M., and at the last regular meeting seven applications for membership were received.

On Decoration Day, May 30, the club holds its first annual race meet at the Hudson River Driving Park, Poughkeepsie, under the rules and with the sanction of the F. A. M. The events are to be as follows: One mile novice (handicap); five mile free-for-all (handicap); one mile private owner (handicap); three mile for single cylinder machines only (handicap); three mile for Poughkeepsie Club members only (handicap); one mile free-for-all; ten mile free-for-all (handicap); one mile slow race; five mile for Dutchess County riders (handicap); twenty-five mile free-for-all (handicap). Prizes valued at $500 are to be offered. The president of the club is Harry English, of Poughkeepsie. The race meet committee is composed of William Frank, Jr., chairman; William Sherow, Herbert Gindele, Woodbury Gindele, secretary, and Ward E. Wiltse, treasurer.

* * *

SECRET CONTROLS FOR QUARTERLY TRIAL.

THE next quarterly trial to be conducted under the auspices of the New York Club will be unique in that a number of secret controls will be provided for. There will be no open checking stations. Although only fourteen of the thirty-eight starters scored perfectly in the first trial a week ago Sunday, the new arrangement will make it even more difficult for entrants to come through without being penalized. The plans are to provide each rider with a schedule when he starts out and put it up to him to make each one of the secret controls on time. This method, aside from tire troubles, which cannot be systematically controlled, is designed to insure fairness to all participants and to do away with racing. It is in conformity with the suggestion made in the April 1 issue of this paper and it will, we believe, work out to the satisfaction of all, except those who consider every trial or run in the light of simply an opportunity to try the speeding capacities of their machines.

* * *

ANOTHER CLUB IN JERSEY.

KNOWN as the Central Jersey Motorcycle Club, with its home in Trenton, an organization comprising eleven members was effected last month, with George H. Yard as president, Mr. Henk corresponding secretary and Joseph Fisher treasurer. All of the above officers are residents of the capital city. Runs have already been made to Somerville, New Brunswick and Lakewood; and a number of longer tours are being arranged, among them a three days' trip to Boston. The emblem of the club is a pin shaped like the State of New Jersey, inside of which is a motorcycle wheel with Trenton as its hub, together with the design of a twin cylinder with wings.

* * *

A SLIGHT change in the Metropolitan Association's schedule of events has just been announced in the way of a transposition of dates. The New York Club's fourth quarterly will take place on Election Day, and the association's race meet the Sunday previous, that is, Nov. 6.

TWO BIG MEETS IN CHICAGO.

CHICAGO'S boosters of the sport are preparing for a campaign of racing for the entertainment of local enthusiasts during the summer, with a prospect of at least two meetings for the speed exponents. The first meeting will take place at either Hawthorne or Libertyville on Decoration Day, providing the plans of the Chicago Club's contest committee are carried out. At a recent meeting it was decided to look into the matter and report on conditions at both places. It is believed Libertyville will offer the most inducements, and many of the club members prefer that location for the meeting. The track is said to be in good condition. The second meet depends somewhat on the success of the first, but probably will be held at Crown Point early in the summer.

A series of photographs of the last club run to Cedar Lake has been presented to the club by P. B. Whitney. They now decorate the walls of the clubhouse at Thirty-fifth street and Prairie avenue.

* * *

FIGHTING FOR THE F. A. M. MEET.

W. G. RHODES is at the head of a movement to bring the F. A. M. meet to Philadelphia. Several enthusiastic meetings have been held in the City of Brotherly Love and the trade folks are very optimistic as to the prospects of holding the big convention in their town. Should they be successful, they have in mind a route, in fact several of them, for the endurance run. The racing events would be pulled off on the Point Breeze track in all probability. Up to the present time, five cities have been mentioned in connection with the Federation assembly, namely, Springfield, Syracuse, Philadelphia, Indianapolis and Los Angeles. According to all reports, the Bay State town is somewhat in the lead, although it is by no means certain that it will capture the prize.

* * *

FROM CALIFORNIA TO KANSAS.

A WICHITA rider will attempt a trip from California to his home town. He is Joseph Blake, of 404 South Hillside avenue. He has purchased a four-cylinder Pierce from the Hockaday folks, and in a few days this machine will be shipped to Fresno, Cal. Mr. Blake will leave the latter part of this month for California. He feels confident of making the trip back to Wichita in good time. The motorcycle will be shipped across the desert. but this will be the only part of the trip which will not be made on two wheels. A complete tenting and camping outfit will be carried.

* * *

FAST TIME BY R. F. D. CARRIER.

DAVENPORT, Iowa.—R. E. Townsend, rural letter carrier on route No. 7, established a record when he covered his entire territory on his motorcycle recently in one hour and fifty-one minutes. Rural route No. 7 extends through Green Tree, Mt. Joy, and goes within a mile of Eldridge, and returns by a different way, in all a distance of twenty-five miles. This mark probably stands as a record, and was made despite the fact that a high wind was blowing against Mr. Townsend most of the way.

* * *

THE Chicago Club's next run will be held Sunday, April 17, to Willow Springs and return. The start will be made at 8:30 o'clock from the clubhouse.

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J. Leo Sauer

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CLIMBING, CLIMBING

PRINTED COPIES LAST YEAR

Jan. 1	3,250	July 1	4,100
" 15	3,750	" 15	4,250
Feb. 1	3,750	Aug. 1	4,700
" 15	3,750	" 15	4,400
Mar. 1	3,750	Sept. 1	4,400
" 15	3,850	" 15	4,500
April 1	4,000	Oct. 1	4,600
" 15	4,000	" 15	5,100
May 1	4,100	Nov. 1	5,200
" 15	4,100	" 15	5,400
June 1	4,100	Dec. 1	5,400
" 15	4,200	" 15	5,700

1909 TOTAL: 104,350

THIS ISSUE: 6,200 COPIES

NEW RULES BETTER THAN OLD.

THE "Confessions of a Private Owner" printed in the April 1 issue of Motorcycle Illustrated, briefly disclosed a condition of affairs with which those "in the know" have for years been fully cognizant. Heretofore the temptations have been such that, as we stated last spring, the only true amateur was the poor amateur. Since that time the F. A. M. competition rules have been subjected to radical changes and considerable improvement in racing conditions has been the result. The new classification has been tried and found not wanting. It is by no means perfect, nor is it at all likely to prove a permanent solution of the problem. In time there must be only two classes, though based upon an entirely different classification than that which was enforced before the three-class arrangement came into being. It will take time and some more experience to establish the proper means whereby to overcome the difficulties which now seem to stand in the way, but the fact remains that many of the old abuses of the rules are no longer practiced, or at least not so extensively as they were before the 1909 F. A. M. Convention.

BRITONS STILL IN DOUBT.

ELSEWHERE in this issue we publish a letter from W. H. Wells, the Indian representative in England. Mr. Wells complains that, despite the rather remarkable performances of Indian machines on English roads and tracks, the average British expert is not yet satisfied that our records are deserving of their serious attention. Of course, some of us may feel that we can get along very nicely whether the English regard our records as authentic or otherwise. Aside from that attitude, which may or may not be justified, the fact remains that we will be in a position to set all their doubts at rest by adopting the suggestion made by Mr. Wells and by having the accuracy of our timers' watches officially certified by the proper authorities. This may be impracticable for unimportant meets, but there could be no harm in adopting such an expedient in cases where records are likely to be broken.

WONDERS WROUGHT BY TIME.

IT is only ten or twelve years ago that the bicycle dealers set aside a small space in Madison Square Garden so that the automobile manufacturers might have a little room in which to exhibit their wares. Ten or twelve years ago—and now! History has a way of going over old ground, duplicating in one field past experiences in another.. When they are so closely related that the only difference is a matter of two wheels, then there is certainly all the more reason to look forward to marvelous eventuations in motorcycling. In any event, there is room for optimism, reason for encouragement and cause for keenly anticipating big developments. If there be factors that inject a germ of uncertainty into the situation, they are such as to be easily subject to remedy. They are unimportant in that they do not affect the broad principles upon which the business has been built and is being developed.

HERRING-CURTISS TROUBLES.

AN involuntary application in bankruptcy has been filed by two or three creditors of the Herring-Curtiss Company, of Hammondsport. This application was by no means unexpected. For some time the Herring-Curtiss Company has suffered very seriously from internal dissension. There seemed to be no solution of the trouble short of a reorganization of the concern. The bankruptcy proceedings mean nothing more or less. The company's financial status is quite sound and there is every reason to believe that all its creditors will be paid in full, and that Glenn H. Curtiss, too honest to fully appreciate all the technique of modern business methods, will come out of the wreckage unscathed. At least, this is the consummation to which the many friends of Mr. Curtiss hopefully look forward.

A MODERN SOLOMON.

A VERY sensible judgment was rendered in England a few weeks ago when a woman sued a motorist for $250 for the loss of a dog. The prosecuting counsel made a great showing by declaring that the motorist came round a corner at ten miles an hour and did not blow his horn. Fortunately "the wise and upright" judge logically replied that horns were sounded to warn human beings and that a dog must be expected to look after itself. "Ought a motorist to wait in a state of rustic ease while a dog completes its private arrangements, before the former proceeds up a street?' added the judge, and the result was a judgment in favor of the defendant. This is sound common sense.

THE RISE OF THE TWO-CYCLE.

UNDOUBTEDLY the two-cycle type of motorcycle is coming to the front abroad. The recent sweeping victory of the Scott in the British A. C. U. Quarterly Trials, coupled with the fact that various manufacturers are experimenting with two-cycle engines, some of which are actually on the market, clearly shows that designers abroad recognize that there is "something in it." And, moreover, most foreign designers are thoroughly practical men who are more than mere followers of fashion for fashion's sake. Hitherto the drawback with the two-stroke engine has been the incomplete scavenging of exhaust gases, but in these days of slide valves, deflecting piston construction and other forms of improved design, this question of inefficient exhausting is gradually being relegated to the rear.

One need not be technical to realize that to obtain a double number of engine impulses to one revolution of the fly-wheel is a distinct gain, if other things are equal. Not only are "other things equal," but in some respects they are actually superior in the two-cycle, for the abolition of peppet or mushroom valves is, as Shakespeare says, "a consummation devoutly to be wished,' for in the achievement of this, overboard goes all valve troubles, and what rider has not suffered from them? As we pointed out last year, all the two-cycle has to do is to show itself equal to the four-cycle and its success is assured, for the designer's Ultima Thule is simplicity in construction and the accompanying reduction of moving parts. At any rate, one two-stroke engine has shown itself to be equal if not superior to the four-cycle type. It must be borne in mind that this is not the only success of the machine in question. Again, the Scott was not represented by a phalanx of entries in the Quarterly Trials, therefore all the more credit is due to its designer.

Of course, critics may observe that this machine has other novel points which may explain its success. We hardly think that this enters into the question at all; the engine is at the back of everything motorcycular and one cannot gainsay the fact that this engine has made a fine showing. The success of the two-cycle will not depend upon fashion but upon sheer merit. We have one or two manufacturers following this lead with experimental work, and now we wish them every success their enterprise deserves. We cannot always follow in a stereotyped rut in design in these days of advanced mechanics. The two-stroke engine has come and is coming "some more," and we firmly believe that it will be for motorcycle designers to show the way to the automobile people. There are and have been moderately successful motorcar two-cycle engines, but from a constructional point of view the two-cycle engine of the present day foreign motorcycle is far ahead in the completeness and efficiency of its design.

NEW ENGLANDER SUCCESSFULLY USES TWO-WHEELER FOR BUSINESS TRIPS.

According to a New England contemporary, it is improbable that one will meet with a more experienced rider than P. W. Richardson, vice-president of the Boston Club, who rode upon his first mount in May, 1902, and is now beginning his ninth year. Mr. Richardson is a business man in no way connected with the motorcycle industry. He was formerly a newspaper man, and this impressed upon him very keenly the value of time. Although the motorcycle was first taken up for pleasure, it was but a short time before its possibilities in business were realized.

Mr. Richardson's first mount was a Marsh 1¾ horse power, and measured by the machines of today it might be regarded as "junk," but for one of the first productions it gave very good results. Considering its crudity and the blissful ignorance of the rider, the fact that the motorcycle could be operated at all was surprising, but Mr. Richardson did remarkable "stunts," one of them being a ride from Medford, Mass., to York Beach, Me., and return, in one day. This was over a distance that is routed for 157.8 miles. The troubles and trials of that experience might fill a volume, and it took good courage to ride that far. Mr. Richardson was accompanied by a friend riding a 3 horse power Orient mount, and the mishaps and incidents were equally divided. The way was not then as improved as it is now and the long stretches of sand called for heart-breaking pedalling and pushing.

Mr. Richardson has ridden consistently since then and always a Marsh or an M-M, making a considerable number of changes, for he believes in keeping pace with the perfections, but his present mount is a single cylinder, which will probably be used through the present year. He is a member of the firm of Richardson, Wright & Co., manufacturers of steel hospital furniture and bedsteads and bedding. As a sales representative he visits all hospitals in southeastern New England, and this necessitates frequent calls at considerable distances.

On the luggage carrier in a leather envelope is strapped the literature, photographs and general data, and with cap, long khaki dust coat and long leggins and gloves Mr. Richardson is ready for the road. He says that from April to November or even December the machine can be used, every pleasant day at least, and covering 110 miles, making business calls and necessary stops during the period, between 9 in the morning and 5 in the afternoon, is an average undertaking. Of course, it is not meant that this mileage is ridden daily, but it could be without difficulty. During the summer for three months Mr. Richardson lives at Beverly, Mass., and his trips are started from that city. To illustrate the possibilities of the machine, he has left Boston about 9 and in turn made calls at Medfield, Wrentham, Foxboro, Canton and Jamaica Plain, and then to Beverly.

Mr. Richardson says that the motorcycle makes it possible for him to do about three times as much work in a day as would be possible with travel by steam and electric railroad. He does not find the riding costume or the evidences of road travel objectionable to his customers, and he has long since learned how best to maintain a presentable appearance.

DALLAS TO ABERDEEN ON A MOTORCYCLE.

Leon J. Keller, a prominent young business man and a citizen of Dallas, Tex., rode into Aberdeen, S. D., recently, after having traveled the entire distance of 350 miles from Dallas in three days. He will leave in a few days for the Cheyenne country to look over the reservations preparatory to filing a claim there next month, he being among those who drew lucky numbers.

* *

At Ingall's Park, Joliet, Ill., a week ago last Sunday, in a 25 mile race with Frank Benedict, Frank Beck, on a Harley-Davidson, established a local record by covering the distance in 37½ minutes. There were times when Beck encircled the course at the rate of almost a mile a minute.

CLEANING SIGHT FEED GLASSES.

A good way to clean oil sight feed glasses is as follows: Procure about two feet of soft cord, pass it completely around the glass, holding an end of the cord in each hand. By pulling the cord backwards and forwards, a fair amount of heat is raised, causing the offending deposit, generally solidified oil, to loosen and disappear. By using a fair amount of discretion there is no risk of breaking the glasses.

* *

G. A. Lacount, a crop expert, employed by the Finlay-Barrell Company, and now traveling through the State of Kansas, uses a motorcycle in all kinds of weather and covers thousands of miles in the saddle every year.

KNAPPE WINS 100-MILE EVENT.

MORE interesting than any other event of the Ascot Park track meet on Sunday, the 3d inst., was the hundred mile free for all, won by Erwin Knappe, riding a 5-h fully equipped Indian, in 1 hour 53 minutes and $43\frac{2}{5}$ seconds. Knappe stopped but once, and then for oil, in the 85th mile. During the early part of the race, in fact, until the 90th mile, Graves led the field. He made the first 25 miles in 23.57, 50 miles in $47.28\frac{4}{5}$, and 75 miles in $1{:}18.05\frac{3}{5}$, which is pretty fast going for a dirt track. Graves lost his lead, however, when he stopped to fill his gasoline tank. In attempting to regain it, he sustained a rear tire puncture and was forced to quit. Kittle, on an Indian, took second place, and Clarence Briggs, riding an Excelsior, third. Schafer, on a Thor, was the fourth to finish.

Among the other events of the afternoon was the five mile national F. A. M. championship, the first of its kind for the 1910 season. In this contest Schafer had a fall in the second mile. Graves, on an Indian, won in $4.47\frac{3}{5}$; Frank Loge (R.-S.) second and Hubert Kittle (Indian) third. The summaries: Five miles for private owners, single cylinder, belt drive stock machines—Won by Clarence Briggs, Excelsior; second, Frank Montgomery, Excelsior; time, $5.48\frac{3}{5}$. Five miles free for all, $30\frac{1}{2}$ cubic inches—Won by M. J. Graves, Indian; second, E. E. Earhart, Thor; third, Raymond Seymour, R.-S.; time, $5.04\frac{2}{5}$. Six miles free for all, 48 cubic inches—Won by Percy Powers, Indian; second, M. G. Graves and Frank Loge, on tandem Indian; third, J. Howard Schafer, Thor; time, $6.12\frac{3}{5}$. Five miles F. A. M. national championship, 61 cubic inches—Won by M. J. Graves, Indian; second, Frank Loge, R.-S.; third, Hubert Kittle, Indian; time, $4.47\frac{3}{5}$. One hundred miles free for all, 61 cubic inches—Won by Erwin Knappe, Indian; second, Hubert Kittle, Indian; third, Clarence Briggs, Excelsior; fourth, J. Howard Schafer, Thor; time, $1.53.43\frac{2}{5}$.

⁂

LONG ISLAND MOTOR PARKWAY.

PRACTICALLY all the western portion of the Long Island motor parkway, as originally planned by W. K. Vanderbilt, Jr., and others, has been completed and opened to motor traffic, now that the twenty miles section between Bethpage and Great Neck has been finished. Cement surfacing has been laid from Riverside to Lake Ronkonkoma, and preparations are making to construct the sixteen miles stretch between Lake Ronkonkoma and Bethpage so soon as weather shall be favorable. Several plans have been proposed for connecting the parkway by new roads to exclusive residential sections, and the terminal at Great Neck is already accessible from Port Washington, Whitestone, Melba and other places at the western end of the North Shore. Plans are being made for new roads to connect the parkway with other contiguous parts.

⁂

THREE DATES FOR WILDWOOD RACES.

THE North Wildwood Automobile Club will hold series of races on its mile straightaway on Independence Day, July 3, and Labor Day. This course is undoubtedly the fastest of its kind in the country. It was here that Goerke reeled off a mile in $43\frac{2}{5}$ seconds last year. Valuable prizes will be offered to motorcycle competitors. Information may be had from W. J. Rhodes, 19th and Diamond streets, Philadelphia, Pa.

⁂

W. A. Wilson, of Cheyenne, Wyo., has been appointed official F. A. M. referee for Cheyenne and vicinity, upon the recommendation of the Cheyenne Club.

⁂

WALTER S. HAMBURGER has been appointed referee for Baltimore and vicinity. His address is 2212 East North avenue, Baltimore.

A B C OF TWO SPEED GEARS.

THE speed of a gasoline engine has to be reduced through a change-speed system of gearing, in order to suit varying road conditions and the speed requirements of the exacting operator. In an expansive engine, steam or compressed air, for example, no grading of the power is necessary, for the reason that a motor of this type is enabled, by its particular style, to gradually and automatically adapt itself to the varying demands put upon it by the aforesaid road conditions, etc.

The explosion motor, on the other hand, is not fitted to expand its power in this gradual manner; therefore, an arrangement of graduated steps is found necessary. In starting a variable speed motorcycle, the engagement of a low gear is made first, and as the machine picks up in speed the other speeds are successively engaged, until the engine is acting directly on the rear wheel.

⁂

MESSENGERS MAKE GOOD USE OF INDIANS.

FAST messenger service is afforded to the patrons of the American District Telegraph Company of Milwaukee by a corps of four boys, who use Indian machines in making their deliveries. The utility of the scheme has been demonstrated entirely to the satisfaction of the company.

MAIN OFFICE
TELEGRAPH
CABLE OFFICE
MONEY ORDERS
DISTRICT
TELEGRAPH

⁂

BIG RUN IN TWIN CITIES.

R. J. BEDSON, Minnesota commissioner for the Federation of American Motorcyclists, has made announcement of the first annual run under Federation auspices on Sunday, April 17. The run will start from Seventh and Franklin streets, and will probably be over University avenue, through Minneapolis and Minnetonka. At least 100 riders will participate.

⁂

D. K. DELONG, Indian agent in Chillicothe, Ohio, who promoted a first-class meet in that town last year, is arranging to hold a series of races the 12th of next month. These will be run on the fast dirt track, on which DeLong has turned a half-mile in 31 secs. The May event will be for strictly stock machines without portholes, and the other restrictions will be such as to give private owners an opportunity to prove their mettle.

⁂

JESSE L. JONES, Montgomery, Ala.—It will be necessary to remove the valve for the purpose of grinding it. Under another cover we have sent you a copy of this paper containing an article on the subject. As to your other query, leakage of oil from the crank case may be stopped by inserting brown packing paper, liberally shellacked, between the crank case joints. Ordinary paper, painted several times with red lead, may also be used.

TO REPLACE A WORN-OUT CAM

A Task to Be Done by an Expert and in a Shop.

VERY often in motorcycle repairs a cam becomes so worn that the full power cannot be got out of the engine, because the valves are not allowed to lift high enough. This trouble will be found more pronounced in the case of old types of motorcycles, but even in the newer types it is sometimes found necessary to replace the cam, and where the design of the machine would be improved by a bigger lift to the valve it is sometimes an advantage to replace the old cam with one which gives a higher lift.

This is a job which requires very careful work and the very best material. It will be plain from what follows that the task can be accomplished only in a repair shop and by an experienced man. As a rule in small air cooled engines the cam is formed in one piece with the wheel, and both are hardened and ground. The procedure about to be described can be followed with advantage where a very worn cam has to be replaced or a higher lift has to be given; the latter in such cases where we have bored out the engine cylinder to give increased power or have lengthened the stroke. Of course, where the new wheel and cam complete can be obtained, this is by far the more satisfactory method, but some of the older engines are difficult to get replacements for.

Presuming that we wish to give the cam a 1/16 or a 1/32 of an inch rise, the best method is as follows: Take out the wheel with its cam and slowly heat it to a dull red heat, preferably in a charcoal fire. The slower it is heated the better. Allow it to cool in the ashes, after which it will be found to be soft enough to turn. The wheel can then be mounted in the lathe, which can be done best in the three-jaw chuck, using a bit of strip brass around it to prevent the jaws of the chuck injuring the teeth of the wheel. The cam should then be turned or ground off until only the circular part is left, forming a true circle with the bore or hole through the wheel, or with the outside of the wheel. In some cases it will be found an advantage to mount the wheel on a slightly tapered mandrel by driving it up on it and running the mandrel between the lathe centers. As soon as the cam has been reduced from its shape to a circular form, it should be nicely finished with a cut of a fine finishing tool with the very slightest taper. We should then take a piece of very tough bar steel, which, when quenched in water, will give a fairly hard surface. This should then be bored while soft, and parted off the size of the bore to be such as to fit on the turned down end of the cam wheel, but not to drive up completely on the tapered part. It should just be able to enter on the taper, and not to go any distance along it; it should then be taken off the chuck and mounted on a mandrel and run between the lathe centers. Each end should have a shoulder of about 1/64th inch wide, representing the diameter of the turned down portion of the cam, and a top diameter equal to the diameter of the original height of the top of the old cam, supposing that the latter were a complete circle, and, if a little bigger lift is required, the extra amount in radius of the extra lift required. The shape of the cam can then be carefully filed; leaving, of course, the circular part where the shoulders are, the shoulders being a guide for forming the circular part, and leaving the metal for the shape of the cam. This can be easily set down from the old cam by tracing it on a piece of paper, tracing round it on one side of the new cam blank. This will give a guide for following up the new cam. After this is done, and the cam is drawn filed in a circular direction, it can be again mounted on the mandrel and the shoulders at each side turned off.

Earl McCone, Captain Savannah Club.

Having arranged the width of the cam to correspond with the length of the tapered portion left on the cam wheel, that part of it where the cam comes should have a hole drilled about 3/16 of an inch in diameter, a similar hole being drilled in the cam wheel and screw with a fine thread. The outside end of the hole in the cam should be countersunk, and a screw should be provided, a nice easy fit, which will screw through the cam wheel and pass easily through the hole in the cam.

We are now ready to shrink the cam on to the extended tapered portion of the cam wheel. First of all the cam wheel and its extended portion should be hardened by heating to a dull red heat and plunging it through a depth of about three inches of oil into the cold water, the oil lying on the top of the layer of water in a deep vessel. About 3/16 of the soft steel should be screwed to fit into the screwed hole in the cam wheel, the projecting portion being about a quarter of an inch longer than the width of the cam. The cam is now heated to a red heat, and while red is pressed over the tapered extension of the cam wheel, the upstanding steel rod locating it in position, it can be easily pressed home between the jaws of a vise. This fitting should be done quickly and deliberately, and before the red heat is lost. It should then be plunged through the oil into the water, the same as the cam wheel. It will then be found to be tightly shrunk on, providing the taper has not been too quick, only a very tight slight taper being required.

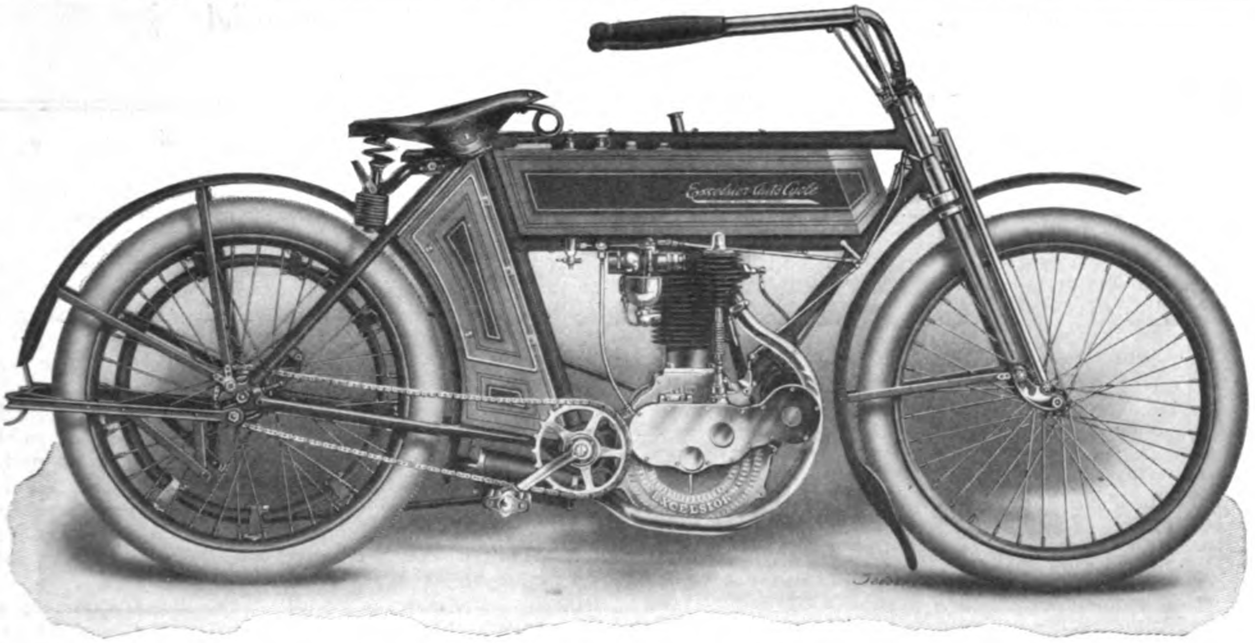
A hardened 3/16 in. screw being prepared to fit the hole in the cam, and to screw into the cam wheel, is now fitted. This should be tinned as well as the hole in the cam and cam wheel, and then, by driving the screw in while the solder is soft, a secure job is made.

If the work is properly carried out, there will be no fear of the cam coming adrift, and in most cases, of course, it will be necessary to make the cam a bigger diameter, even although we do not increase its width, in order to get plenty of metal between the cam wheel and the cam, to prevent it from bursting or stretching. It will, therefore, be necessary to modify the length of the valve plungers.

⁂

BEST TIME BY INDIAN IN HILL CLIMB.

AT the hill-climbing contest held in San Francisco March 31, Collins, on a 7 Indian, made the best time of the day, 57⅘ seconds, the hill being one mile long. Balke, on a 7 Thor, was second. The best time by an automobile was 1:07.



"THERE IS ALWAYS ONE

By which the others are measured."

When the City of Chicago called for bids on motorcycles for the Police Department, the specifications required that the machines furnished be fully up to the standard of those then in use in the department.

The machines referred to were Excelsiors and the contract for the new machines was awarded to

EXCELSIOR
AUTO-CYCLE

THE ONE THAT ALWAYS MAKES GOOD

Is not this a convincing proof of

EXCELSIOR SUPERIORITY?

Think It Over—Then Get Busy

EXCELSIOR SUPPLY COMPANY

ESTABLISHED 1876

233-237 RANDOLPH ST., CHICAGO, ILL.

Eastern Representative
STANLEY T. KELLOGG, 2312 Broadway, New York

Pacific Coast Branch
361-363 Golden Gate Ave., San Francisco, Cal.

QUESTIONS & ANSWERS

Speed Claims and Undergearing.

I DON'T want a motorcycle for great speed. If I can run 12 or 15 miles an hour, or at the most 18 or 20, it will be plenty fast enough for me, especially over strange roads where a fellow does not know when he is likely to strike a rut, stone or something of that sort. In this section the roads are very poor, rough and sandy. I expect to use the machine a lot this fall for business. My idea is that I want a motorcycle for power, reliability, and steadiness. I assume any machine has speed enough for me. Kindly tell me if the ordinary motorcycle will develop the speed its makers claim for it in their printed matter. Why would it not be much better for me to have my machine geared much lower than usual? When this is done, is there much danger of overheating the engine? Would it make any difference in the economy of fuel consumption? A. A. RICHARDSON.

Bemidji, Minn.

With regard to the absolute accuracy of the speed claimed for any motorcycle, as published in catalogues and talked of at shows, almost invariably it is over-estimated. Frequently does one see in a catalogue such expressions as "speed from four to sixty miles an hour," when the machine actually can touch about thirty-five to forty at the very outside when tuned up. Stock machines rarely can show anywhere near their estimated speed as per catalogue. So do not get scared on this point. We are of the opinion that this "boosting" of the motorcycle as a pure speed machine does harm to the trade in general, and certainly hurts the sport, as the outside public gets a false impression of the motorcyclist as a vicious law-breaker and a menace to civilization.

It is, of course, unwise to gear a machine too low. First, this causes a tendency towards overheating and an excessive consumption of gasoline. Again, in a belt-driven machine, the front pulley would have to be very small, and this will cause belt-slip. This can be overcome by using a lightweight "undergeared" machine. Now, by using a lightweight of about two h. p. geared to six to one, you might be able to get a maximum of twenty miles per hour at the outside and climb ordinary hills and perhaps some bad ones with pedal assistance.

You could do better than this by taking a standard 3½ h. p. and gearing to five to one. This would mean that you could tackle any hill within reason, but you could not obtain as low a *top speed* as sixteen miles per hour. With the use of the throttle you could easily strike this speed as an average, but we should not advise any one either to gear a motorcycle or use a low power so that sixteen miles an hour is the top speed. With the low power you must rush all bad hills, and with the low gear you would get overheating and other probable contingent troubles. If you learn to drive a 3½ h. roadster geared to five to one, you will find that the extra power at your command is a pleasure rather than the reverse. You will also find that with a motorcycle of this description you can easily throttle down to as low an average speed as ten miles an hour if you so desire, and keep this up mile after mile.

One can crawl in traffic on the modern motorcycle at far less than ten miles an hour, but it would be more than difficult to strike an average of twenty miles on either a lightweight or an undergeared machine unless the gear was at least five to one or thereabout and plenty of reserve power was there for any bad hills. The best all-around machine for the purpose you describe would be a good, reliable, 3½ h. standard mount with a gear of five to one. Because a machine is *said* to touch a certain speed, it is not necessarily true that it will do it in actual practice on the road. Again, because a machine will *actually* touch a top speed higher than you really require, it does not follow that you cannot drive it at a far lower *average* speed, keeping the reserve power for when it is actually needed.

Has Trouble with a V Belt.

W. B. BELL, Van Buren, Ark.—We think that this belt is an imported Watawata. We are not quite certain on this point, as the makers of your machine fit two kinds. The Watawata is dressed in oil and, when first used, slips, because the dressing is soaked into the leather. After a hundred miles or so this defect disappears and all is merry. Now, the other kind used is an ordinary three-ply rawhide belt. If this gives trouble, it is a fairly sure sign that the belt or pulleys are not of twenty-eight degrees section. This is a most important point in belt-drive and is often overlooked by manufacturers. The belt you name is first-class, and if the pulleys are all right in construction as stated, this belt will give excellent service. The two-speed gear made by the same people as is the belt is also to be relied on in every way.

Slow Starting and Stallage.

WHY does my engine not start off at once? It takes five to ten minutes before it works well and does not skip? (2) I was riding with my brother behind me the other evening and when I went to turn a corner the engine stopped. On examination I found that I had lost my compression, so that the machine would not carry me on the level, but would make a very faint explosion. I tried to start it, and after five minutes' work the machine started off with good compression and everything else O. K.

Cadiz, O. JAS. C. J. TAGGART.

(1) Various troubles may cause slowness of starting. First of all there may be dirt in the carbureter, which clears only after a little running. Again, the valves may be sticking in their guides, or the sparking mechanism, whether battery or magneto, may not be operating properly. Try injecting a few drops of gasoline into the cylinder-head when you wish to start up, as the piston rings may be "gummed." Only a few drops are needed, as otherwise the gasoline will scour the lubricating oil off the cylinder-walls. If she starts right away, this will prove at any rate that the spark is all right, even if you have not tested the same, which we presume you have done already. This will show the fault to be either in the curbureter or in the valves sticking, or, as mentioned, in the gumming of the piston. (2) The stoppage you refer to seems to indicate that the valves are sticking in the guides, or perhaps the spring of one of the valves may have got hung up. Take off the valve caps, take out the keys at the base of the valves, holding up the springs with a screwdriver to do so, and then you can withdraw the valves from the top. We are assuming both valves to be of mechanical type. Then try the valves and valve-tappets in their guides, clean out the same, lubricate the whole with graphite and replace. Be sure to take away any stiffness in operation, as the valves should work freely in their guides, which also applies to the valve tappets. The sticking of a valve will cause the loss of compression you refer to. Again, a small piece of dust or carbon between the valve and its seat would result in similar symptoms.

Spark Plug Position; Back-Firing.

WHICH is considered the best place for a spark plug, in the head of the cylinder or in the side above the exhaust valve? (2) Would the back-firing of a magneto machine be due to a carbon deposit in the cylinder? (3) Which are considered best for all-around work, 26 or 28-inch wheels?

Philadelphia. EDWARD S. THOMPSON.

(1) Actually the best place for a spark plug is right in the center of the cylinder-head, but on the greater number of motorcycles there is not sufficient clearance between the tank and the cylinder-head for this; therefore the alternative position is adopted. When you say "the side above the *exhaust*-valve," you must mean above the inlet-valve, the reason why this position is chosen being, it is argued, that the incoming gas is purer, while the cooling effect of the charge is good for the spark-plug. Motorcycle "scientists" say that the center of the cylinder-head is the best position, because the combustion of the charge is more complete than in the other case; certainly the firing point is more directly over the center of the piston, but it would be almost impossible to prove that the combustion was more complete unless a power-curve test were applied. (2) If you refer to starting from "cold," it would be impossible to have a back-fire caused by a carbonized cylinder-head or piston. In the case of back-firing when starting, it would be far more likely that this was caused by either a weak or "stuck" inlet valve spring, or the valve might be stuck in the guide. Again, the adjustment of the carbureter might be faulty. Unless one had just stopped a heated carbonized engine, one could not obtain a back-fire from this cause. Excessive carbonization only causes *pre-ignition* under ordinary circumstances; you might have mistaken this for back-firing, but that is not likely. Examine the valves and the carbureter carefully and you will find the fault there. (3) Twenty-six inch wheels are stronger and give a lower center of gravity to a machine. Twenty-eight inch give a little less vibration over very bad roads, but the advantage of the smaller wheels offsets this in your territory.

Tandem or Side-Car.

I WISH to know if the Curtiss double is all right to use with a tandem attachment. Do you think the frame is strong enough to carry two persons without undue strain? Would a gear of three to one be too high? HAROLD L. DAY.

Washington, D. C.

Why not study the side-car question before the tandem attachment, as the comfort gained, the room for light baggage and the

When you strike rough road you feel the difference. Ask any rider the Facts about

MESINGER

MESINGER
"CAVALRY"
SADDLE

"CAVALRY" and "STANDARD"

MOTORCYCLE SADDLES

ASK WHAT THE PATENTED SHOCK ABSORBERS DO

Built for COMFORT, tested and approved by many manufacturers of motorcycles. They save the rider and machine from disagreeable jolts, prevent side-sway and add to the pleasure of motorcycling.

MESINGER
"STANDARD"
SADDLE

AN UNSOLICITED TESTIMONIAL:

CHAMBERS CYCLE CO.

Rome, Ga., April 4, 1910.

"The H. & F. Mesinger Co., New York.

"Dear Sirs—I would like to give you voluntary testimony about your Mesinger Cavalry Motorcycle No. 3 Saddle.

"I rode a motorcycle in the 1909 F. A. M. Eudurance Run, and the machine I was to ride was not equipped with a Cavalry saddle. So I refused to mount it until the manager of the team equipped it with a Cavalry saddle. I covered the distance from Cleveland to Indianapolis with ease, and was not at all tired out.

"I have been a motorcycle rider for seven years, and I think as much of a good saddle as I do of a good machine.

"Yours respectfully,
"B. V. CHAMBERS."

H. & F. MESINGER MFG. CO.,
1801-1807 First Avenue, - NEW YORK

sociability are undoubted advantages. A good twin-cylinder with a two-speed gear and a side-car is an ideal touring combination, very easy to handle and comfortable to ride. A top gear of three to one would be too high for a passenger outfit of any kind, and again we would advise strongly your learning all the tricks of riding before tackling a high-geared "speedster." On the other hand, any 6 h. twin is easy to learn to handle and the steering of the side-car combination takes only a day to master.

Why a Machine May Buck.

I HAVE a Peugeot motor in my machine and sometimes in starting the machine on a run she will "buck," that is, stop suddenly after going a few yards with valve dropped. I also have considerable trouble with the carbureter (Longuemere), especially in starting, it being necessary to keep the float down. Once in motion, however, the machine runs O. K. I also experience considerable trouble with misfires, although the timer is adjusted and has new contacts. A. SUSSMAN.

New York.

Your trouble may be thus classified: 1, ignition trouble; 2, carbureter trouble; 3, sticking of the valves. Taking the first, it may be some short circuit which develops only occasionally. Examine the wiring for this. Plug may be defective, or the timer may be adjusted with the points too close, this perhaps being caused by the new platinums. A very slight adjustment of the timer, even one-eighth of a turn, often makes a world of difference in the running of the machine. You do not mention what type of Longuemere carbureter you are using on your machine. If it is an automatic type with the air-shutter at the base, the best plan is to partially block up this opening and experiment with different sizes of pieces of tin. When you have found the best size of air hole, discard the flapping automatic shutter altogether. The level of the gasoline is too low. You should take the carbureter to pieces and adjust the float so that it comes slightly lower than at present. The carbureter you mention would be a good substitute, in fact, it was used in conjunction with the Peugeot engine by two manufacturers abroad with great success. The valves might be sticking and this would cause what might be termed a miss-fire, but it is far more likely that the carbureter is being "starved" or is suffering from an obstructed jet. If the jet has a bit of dust or gasoline sediment at the base, this will seriously interrupt the flow of the gasoline, yet it might not completely stall the engine, but would make it somewhat hard to start. Therefore, before altering the adjustment of the float, look for any signs of dirt or sediment in the carbureter. Also, while doing this, it would be as well to look for any obstruction in the fuel pipe, as this would also interrupt the feed to the engine and cause misfiring and "starvation" in the carbureter.

No Cause for Being Afraid.

WILBUR C. KENT, Back Bay, Mass.—The machine to which you refer is the Peugeot, and it is manufactured in this country by C. F. Fulmer, of Plainfield, N. J. The troubles of which you write have been practically all obviated in the 1910 machines. Of course, the motorcycle is not yet perfect, but it is dependable, economical and safe. Accidents will occur in all sports, even to those who are very careful. You ought not to be dissuaded from becoming a motorcyclist simply because of the fatality which recently occurred in your neighborhood.

This Paper and Its Readers.

I CONSIDER it a high honor to Mr. Prial to have left such a mark of influence and good will; the paper speaks for itself. MOTORCYCLE ILLUSTRATED appears to be run on the square, and to be devoted to the full interests of the game. It is a booster and boomer —not a knocker; the best friend and companion of the motorcyclist. The illustrations and photographs certainly bear out the name of the paper to a fine degree. The pictures I find very valuable to ornament the walls of my room, being so vivid in expression, and bringing such pleasant memories and recollections that I class them as a joy forever. Yours very sincerely,

Baltimore, Md. E. G. ROBERTSON.

O. M.—The company explains your failure to get parts by the fact that your machine is three years old and that it does not attempt to carry a complete stock of the equipment of obsolete models. It was because of this condition that it required eight days to fill your order.

CARL BUDTKE.—The address of the publishers of the *Cycle and Automobile Trade Journal*, the Chilton Printing Company, is Market and 49th streets, Philadelphia. *Motor Boat* is issued by the Motor Boat Publishing Co., 1133 Broadway, corner 26th street, New York.

ACCORDING to H. H. Wilcox, the report of his disappearance was "very much exaggerated." Mr. Wilcox is still located, according to a recent letter to this office, in Jamaica Plains, which is a part, not a suburb, of Boston. He advises us that he is filling orders for parts, also for F. N. machines, of which he says he has sold a considerable number.

EXPERIENCES OF A BEGINNER.

I PURCHASED it early in the spring, it being a 2¾ h. chain drive of standard make. In about two weeks I had so far mastered the machine that I could ride it without fear of its running away and climbing a tree or fence. The advice which I received from my friends was varied and helpful(?). Many of them shook their wise heads and simply predicted that I would die a horrible death. Very cheerful, yet at the end of the season I can still sit up and take notice. However, I must admit that I left the machine rather hurriedly on two occasions.

I remember the first time as though it were yesterday. I was going up a slight grade at a goodly clip when suddenly the machine slipped and turned squarely around. It stopped right there. I didn't, at least, not right there. The next time I tried to follow a rut in a sandy road. It may be that some riders can do this. But I didn't make a success of it then, and I have never dared to try it again.

I have made many runs through the Adirondacks and one trip to Lowell, Mass., covering 600 miles. It is strange that so few motorcyclists try the Adirondacks. The roads are not bad and I have found far worse hills in Massachusetts and New Hampshire. Hens and chickens are the worst drawbacks. You gaze about you, as you speed over a fine piece of road, admiring the wonderful works of nature that abound in the mountains, and then— "Young man," says the old farmer, "that hen was one of the best layers I ever had. Paid $7 for the setting of eggs that she was hatched out of and, by heck! she was the only chicken out of them fifteen eggs. That hen was worth just—" "One dollar?" "Ah! Thank you! Thank *you!* Lovely weather, ain't it?"

Dogs, too, are always on the job. They seem to delight in chasing a motor. It is rather discouraging to them in the end, but it is safe to ride fast enough so that they won't have time to grab you. I rode too slow one day, trying to tease a canine and tire him out. He got me on the leg all right, but I got back at him with a well-directed kick, which caught him on the jaw. One little fellow persisted in running directly in front of the machine. When he became exhausted he stopped, quick. That was more than I could do. The front wheel pushed him gently to one side and then the pedal came along and tickled him in the ribs. The last I saw of him he was rolling over and over in the dust. I didn't stop for any more particulars, as his owner was just behind, and I do not like to get into a controversy of the sort that seemed impending.

While traveling at a 25-mile clip on one of the perfect highways of Massachusetts, my engine suddenly quit. I looked the wires over; they looked good. I tested the spark; it was all right. I mounted, got her going, then dropped the valve. It ran as easily with the valve down as up. The compression had vanished. The exhaust valve was all right, so I took out the automatic inlet. It had parted company with its spring, the spring collar having broken in two. Fortunately the two pieces had not been drawn into the cylinder. I went foraging in the kit, found a flat washer with a hole in it that would just fit over the valve stem. I put the spring in place, pressed the washer on, then passed some heavy wire through the slot in the valve stem and around the washer to hold it. I used it for a week until I could get a new collar. D. S. ADAMS.

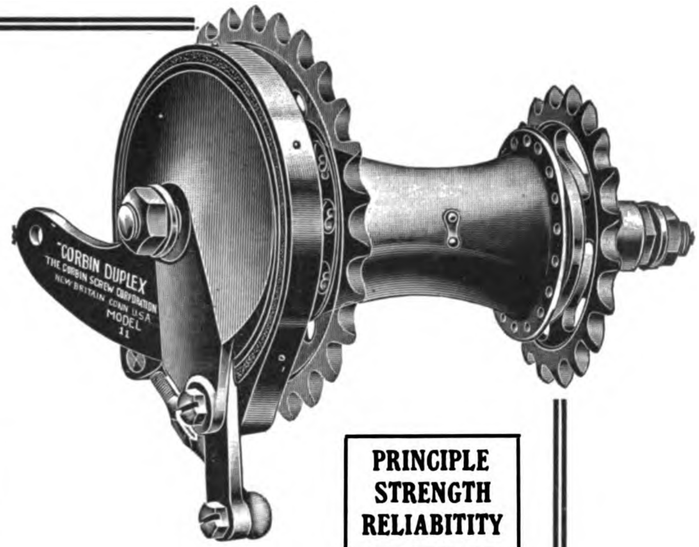
Keene Valley, N. Y.

THE demonstrations which Fred Huyck is giving in Chicago of the new 7 two-speed Indian are making many sit up and take notice. Even the old riders are watching the operation of this new machine with the greatest interest. It is interesting to see a rider come up to the curb with his motor running, make a stop, give a demonstration of how nicely and smoothly the engine will run, then throw on his low speed, start off, making the turn in the street without stopping the motor or slowing down, and then throw her into the high speed and start down the street as fast as the speed limit will allow, without any other operation than the clutch lever. The speed limits of the machine are so far apart that its achievements are attracting wide attention everywhere.

FRED HUYCK ON TWO-SPEED INDIAN.

Security on a Motorcycle

IS ASSURED WHEN A

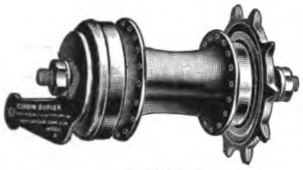


PRINCIPLE
STRENGTH
RELIABITITY

Corbin

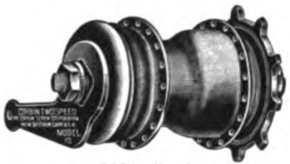
BAND BRAKE

Is Part of Your Machine's Equipment



MODEL 8.

MODEL 9.



MODEL 10.

For Either Belt or Chain Driven Machines,

The Success of the **CORBIN BRAKE** Has Been Demonstrated to the Satisfaction of Thousands.

AGENTS AND RIDERS

Handle and Use a Brake Whose Efficiency is Universally Acknowledged. Quotations on Request.

THE CORBIN SCREW CORPORATION

LICENSED COASTER BRAKE MANUFACTURERS

THE CORBIN SCREW CORPORATION OF CHICAGO, 107-109 Lake Street, Chicago, Ill.
NEW BRITAIN, CONN., U.S.A.

WAREHOUSES

106, 108, 110 Lafayette Street, New York
Northwest Corner Eighth and Arch Streets, Philadelphia, Pa.

MAKERS AND SELLERS

"FROM TREE TO TIRE."

PHOTOGRAPHIC films are being used by some of the largest advertisers in this country. A recent striking instance is a project undertaken by The B. F. Goodrich Co., of Akron, O. There is scarcely any commodity among the necessities about which so little is popularly known as rubber; and perhaps there is no article of commercial convenience, the construction and maintenance of which is so misunderstood as the tire. The B. F. Goodrich Co. has recognized this situation uniquely. At large expense it had taken a series of pictures representing the entire process "From Tree to Tire;" then it engaged the services of a lecturer and operator to show these views; and now it is placing the pictures before the members of motor, athletic and university clubs, and elsewhere in public gatherings.

The first of these films shows the dense vegetation of the up-river regions of the Para, a tributary of the Amazon River in South America. The native gatherer is seen making hatchet incisions into the bark of the rubber tree and then adjusting the cup to catch the latex. Other natives bring their calabashes, remove the cups from the trees, empty them of the juice, and emerge from the forest to the rubber camp.

There, underneath the thatched roof of an open hut, is a native dipping a heavy paddle into the sticky rubber and smoking it in the fumes of a fire built of palm nuts. This is the making of the rubber into convenient form for shipment—the large "biscuits" to be packed in wooden cases. Then there is a picture of the arrival of a shipment of "biscuits" and their storage in the large cellars of The B. F. Goodrich Co., Akron, O.

After that are the steps of manufacture. First, the "biscuits" are weighed and inspected, and then softened so that the rubber can be well broken up and washed. Next is the important milling process—what might be called the kneading in a bakery—to mix the crude rubber with the various compounds; the coating of the fabric with rubber; and the cuttitng of the stock into various sizes to make up the Goodrich white tough tread. One of the most interesting series is the building of the tire on the tire machine, and then the significant process of applying the tread. After that is the vulcanizing of the tire, and its trimming and scrubbing.

These views are handled by an experienced operator, and their significance is explained at length by a lecturer. The undertaking has met with unusually enthusiastic receptions. In Toledo recently one of the largest city theaters was hired by The B. F. Goodrich Co., and invitations were mailed by the company to every automobile owner in the city. Over 1,600 people responded. Mr. Tillisch, the lecturer, and the operator, are now working towards the Eastern cities.

In Defence of the Much-Abused Tire.

IN general it is the inexperienced motorcyclist who is most apt to find fault with pneumatic tires or lose his temper and say harsh things—the exact nature of which will be governed more or less by his accustomed vocabulary. "On the other hand, it is the experienced rider," said Theodore Weigele, of The Diamond Rubber Co., recently, "who most realizes the necessity of the cushion of air between his machine and the road. He realizes, too, that no matter how good we make Diamond motorcycle tires, they cannot, from the very nature of their work, be expected to last for all time. He has learned to know that the main purpose of the tire is not as much to save him from the jolts of the road as it is to save his motor and the whole machinery of his motorcycle from the jarring that would very soon put them out of business. Even if the mechanism could not be put out of order, the constant vibration, if pneumatic tires were not used, would crystallize and ultimately destroy the metal. The most thorough tests have demonstrated the truth of this assertion.

"We realize that a large part of the cost of motorcycling must be for tire equipment, but the experienced user of a motorcycle knows full well that it is greater economy to buy a new set of tires than to purchase a new engine or a new motorcycle complete. That is just what the cushion of air saves him. But he can hold his tire bills down to the minimum by buying judiciously and always providing ample inflation."

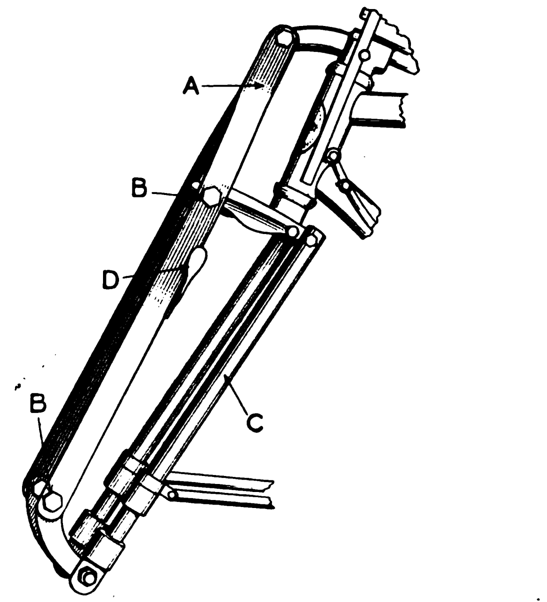
A VERY attractive and also a most comprehensive catalogue has just been issued by the N. S. U. Motor Company. It is well printed on fine paper, beautifully illustrated and full of meaty contents. It is a fitting exponent of one of the best machines on the market. The N. S. U. factory, their 1910 models, N. S. U. side and fore cars, the company's efficient two-speed and free engine gear and a number of N. S. U. accessories are listed, pictured and fully described. The catalogue may be had for the asking by writing to the N. S. U. Motor Company, 206 West 76th street, New York City.

LOS ANGELES SHOW BIG SUCCESS.

EVERYONE who has made any kind of study of the situation has known for some time that Los Angeles was large enough and progressive enough, from the point of view of the motorcyclist, to conduct a show all its own. The Los Angeles folks have just demonstrated that this is the case. Under the auspices of the very live Los Angeles Club, a four-days' exhibition was conducted in the home of that organization, beginning March 23 and coming to a most successful conclusion on the 26th of the month. The committee which managed the affair was composed of Charles Fuller Gates, A. J. Johnson, G. T. Stanton, A. F. Porteus, Howard Schaffer and Captain C. E. Anderson. Two floors of the spacious club house were devoted to the display. The exhibitors and the machines, parts, etc., which were shown, were as follows: Lincoln Holland, M-M. motorcycles; Valvine Oil Co., lubricants; C. W. Risden, Indian motorcycles; John T. Bill & Co., Emblem, Pierce and R-S motorcycles, Kokomo tires and accessories; Singer Bros., Singer motorcycles; Appeal Bicycle Co., Retail Department, Minneapolis and Harley-Davidson motorcycles and accessories; C. M. Frink, Wagner and Moto-Reve motorcycles; Holmes & Kittle, spring forks and tandem attachments; A. Freed, Thor motorcycles; Pennsylvania Rubber Co., tires; C. M. Smith, N. S. U., Merkel and Light motorcycles; Los Angeles Motorcycle Co., Greyhound motorcycles; Warner Instrument Co., Warner autometer; F. A. Munson, fire extinguishers; A. C. Hamilton, ignition apparatus.

Still Another Spring Fork.

CALIFORNIA riders are creating quite a demand for the new Gates spring fork, manufactured there by Kittle & Holmes. The guide (A) is fastened solidly on the crown of the machine, providing rigid alignment and preventing any side play. At (BB) are two fulcrums with arms extending back to movable forks (C) which are hollow tubes. Inside this tube are coiled springs working around a plunger fastened solidly to the hub of the wheel. The tension of the spring can be adjusted to suit any weight by means of lock nuts. This allows a backward and upward motion to the wheel, when striking an obstruction, of from three to five inches, according to the severity of the shock. Between and in line with the guide (A) is an equalizer (not seen in this picture) which works on the lower fulcrum (B). This is a heavy iron bar coming up from one side, over the wheel and down on the other side to the fulcrum (B) and acts as a brace for the wheel as well as to take up the rebound when the wheel flies back, this equalizer flying forward and backward as the springs in posts (C) force the wheel down and forward again. Kittle & Holmes are also making a spanker seat and a tandem attachment in which they are using the same principles of plunger, spring and arm.



The Superiority

of

G & J TIRES

has been so frequently demonstrated that it has now become an axiom with all riders of national reputation. They won't take chances on anything else. The further fact that

all the leading motorcycle manufacturers of the country specify G & J Tires

as their standard equipment will convince you that the Indianapolis G & J Motorcycle Tire is the

unquestioned leader in the world of motorcycling.

You cannot get anything better.

Send for our illustrated booklet.

G & J TIRE COMPANY, Indianapolis, Ind.

CHARLES E. MILLER'S MAMMOTH CATALOGUE.

WE have just received a copy of the large motor supply catalogue published by Chas. E. Miller, who is a manufacturer, jobber, exporter and importer at 97 to 103 Reade street, and 123 Chambers street, New York City, and has branches in Philadelphia, New York, Brooklyn, Boston, Cleveland, Detroit, Buffalo, Atlanta, Hartford, and New Orleans.

The catalogue contains 256 pages and cover, and it required over thirty-five tons of paper to print this edition, which is over 75,000 copies. This is Mr. Miller's Annual Catalogue No. 16, and is considered an encyclopedia of motor supplies. For the past ten years Mr. Miller's catalogue has been used as a book of handy reference and referred to daily by manufacturers, agents, and owners of automobiles, motorcycles and motor boats. Mr. Miller is the largest jobber of automobile material in this country, if not in the world. He has been located at his present address in New York City for the past fifteen years.

The circulation of the catalogue is limited, and is being mailed on request only to those who are not regular customers of Mr. Miller, or whose names are not on his mailing list, and as this issue is limited, we would suggest that those who are interested write immediately for a copy.

Duty on Saddles 45 Per Cent.

THE Board of United States General Appraisers has refused to disturb a ruling made by the customs authorities in a case affecting the classification of leather motorcycle saddles. The saddles were returned for duty at the rate of 45 per cent. under the provision for "manufactures of metal not wholly provided for." Wells, Fargo & Co., representing the importers, alleged that the duty should be at the rate of 35 per cent. as "manufactures in chief value of leather." General Appraiser Fischer overrules the claim in the following language:

"On notice duly given in this case, the importers failed to appear, and have offered no evidence in support of the claim filed in the protest. There are official samples before us, but as no proof has been presented as to the component material of chief value in the articles, we are not warranted, upon a mere inspection of the samples, in disturbing the assessment of duty as made by the collector. The protest is overruled and the decision of the collector affirmed."

Another Exhaust Whistle.

BRAZENOR & RUDERMAN, of 1041 Bedford avenue, Brooklyn, have just placed upon the market an exhaust whistle which is part of a coupling which is clamped around the exhaust pipe close to the outlet from the cylinder. The nickel-plated whistle is screwed in one side of the coupling, which also comprises a gate-valve so constructed as to completely obstruct the flow of gas in the usual direction when one desires to use the whistle.

R. E. LAMPMAN, of Hartley, Ia., is another new member of the M. M. camp. He has sold a number of twins and has orders for a number of M. M. "4's" to be delivered as soon as possible.

A Firm of Lone Star State Pioneers.

THIS is the home of the Indian and Harley-Davidson in Texas. Those shown in the photo are Messrs. J. W. and W. L. Ruff, who have the distinction of being the pioneers of motorcycle enthusiasm in the Lone Star State. They are the organizers of the Dallas Club, the membership of which has reached a total of over fifty. The Ruff Brothers carry, in addition to the Harley-Davidson and Indian machines, one of the most complete lines of tires, accessories and supplies to be found in the South.

INDIAN MOTOCYCLES

NEW R-S. MOTOR DEPARTMENT.

READING STANDARD CO

THE accompanying photograph gives one an idea of the growth of the motorcycle industry. This picture shows a view of the Reading Standard Co.'s new motor department, factory No. 2, in which the R-S engines are manufactured and tested. This addition to the R-S factory insures an increased output, better testing facilities and prompt deliveries. Prospects favor at least a doubling of the 1909 R-S output.

GEORGE W. REINBOLD, the Yale agent in Philadelphia, may well be numbered among those who are establishing 1910 selling records. Since the opening of the season he has disposed of no less than fifty-six Yale machines. He is energetic, enterprising and thoroughly up-to-date dealer. However, Philadelphia is proving to be an excellent field. Other dealers are also doing very well. None of them has any occasion to complain.

IT is called the 1910-1911 "Motorlog," and it is one of the most complete compendiums of motorcycle accessories which has ever come to this office. The Motorlog is issued by the F. B. Widmayer Company, 2312 Broadway, this city, and it looks like a *sine qua non* to up-to-date riders. It is a booklet of 32 pages and lists practically everything of any consequence in the way of motorcycle appurtenances. It may be had for the asking. Write for it.

RALPH P. DOWSE, manager of the G. & J. Tire Co.'s Detroit branch, has resigned, having, in conjunction with L. H. Christian, taken over the Southwestern representation of the Car Makers' Co., and will in the future handle the product of the factories producing the Anhut, De Tamble, and Cutting cars. Mr. Dowse's connection with the G. & J. Tire Co.'s Detroit branch has been eminently successful.

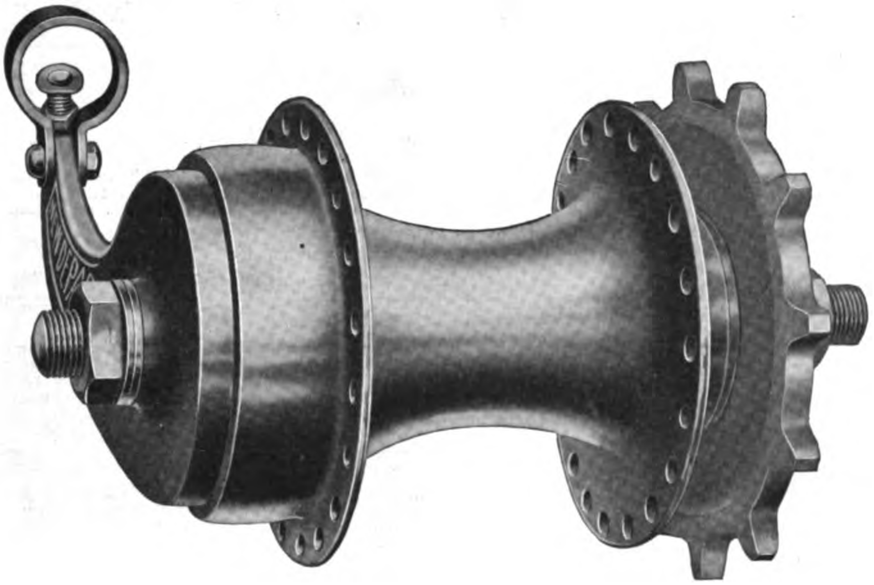
A HARLEY-DAVIDSON machine has been purchased for the use of the electrical inspector of Spokane, Wash. This officer previously used an automobile, but the cost of operating the same was found to be too great, and accordingly it was decided to invest in a motorcycle. The selection was the result of a competitive test of the different machines represented in Spokane, and the Harley-Davidson folks are quite elated over the fact that their mount was chosen.

ARKINS & CLAFLIN have purchased Carter's League Cycle Store, in Salt Lake City, including the Indian agency. They are selling all the machines they can get, besides doing a general repair business. "Lon" Claflin was agent for the Reading Standard last year in Cripple Creek, Col. Mr. Arkins is an old Salt Lake motorcycle man.

MANAGER PICKENS, of the Texas M. M. branch, expects to have all cow punching in the Lone Star State done on M. M.'s in the future. Ben Howard, traveling representative, is having wonderful success in picking out chief "punchers."

WORK has been resumed on the new office building of the Reliance Motorcycle Company, of Owego, N. Y. As soon as this structure is completed, a concrete building for use as a gasoline and oil room will be put up.

THERE was a motor show at Des Moines recently. Among those exhibiting were the Anthony Cycle Company and F. R. Jenkins. The former showed the Merkel and M. M., while Jenkins exhibited the Indian.



NEW NEW DEPARTURE

Internal Expanding Band Coaster Brake for Motorcycles is

Band Brake and Lever

POWERFUL PRACTICAL POSITIVE

Band Brake showing top plates holding parts in position—transparent view

The New Departure is the last word is coaster brakes for 1910 motorcycles. Radical improvements have been made, bringing it abreast of motorcycle advancement. It is dependable under all circumstances, strong enough to stall the highest powered motors; cannot bind, lock, "feed up" the pedals or cut into the hub. Every test proves claims made for it and every user declares its unfailing efficiency.

When asking your dealer about the "NEW" New Departure, do not fail to tell him you want to see the internal expanding band coaster brake.

Write for Folder

THE NEW DEPARTURE MFG. CO.

Coast Brake Licensors BRISTOL, CONN.

MOTORCYCLE MART

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word; two or more times, three cents per word each insertion. No advertisement for less than fifty cents. Cash with order, always.

ANOTHER DEMONSTRATION OF QUICK RESULTS

"Editor MOTORCYCLE ILLUSTRATED:

"Talk about quick and efficient advertising mediums! Last week I sent you a thirty-word 'ad.' to appear in the Mart of the issue of March 15th. I don't know what time of the day MOTORCYCLE ILLUSTRATED appeared, but at 3.30 p. m. (three hours after the paper was off the press) my machine was sold, delivered and paid for. By investing a dollar in a Mart ad. I sold my machine for $35 more than an agent had offered me IN EXCHANGE, and on the very day of the appearance of the advertisement!

"I guess that's going some.
"New York, March 16, 1910." Very sincerely yours, "LIVINGSTON FOUNTAIN.

"P. S.—Last year I spent $5.85 in advertising the SAME MACHINE in the newspapers, and failed to sell it."

FOR SALE OR EXCHANGE

FOR SALE.—Curtiss 1909 3½ h.-p., extra tire, and valves; new in August. Price, $140. M. D. Thornton, Spencer, N. Y.

FOR SALE—New 1910 Indian Twin, 5 h. p., run 75 miles, in perfect condition; foot rests, tool box and tools. Need the money at once, so will sell for $225. Address Box 231, Barnesville, O.

FOR SALE.—One Pioneer, new, cost $265, will sell at $200; one New Era Autocycle, new, cost $300, will sell at $200. Milton Motorcycle Co., Cincinnati, O.

FOR SALE.—Lightweight F. N. almost new, 110 lbs., 1¾ h.-p. magneto, spring fork, metal tool-box, luggage carrier and stand, brand new tires, easy starter, good hill climber, an ideal runabout, cost $215. Reason I sell, am now living in the rough Oregon interior. Can be seen at N. S. U. Motor Co., 260 W. 76th street, New York City.

FOR SALE.—Van for Indian, cost $125. price with new tires, $50. New last season. Frank S. Bump, Binghamton, N. Y.

BEST OFFER takes brand new speedometer, lamp and generator, bullfrog horn and a Persons champion saddle; cost $12, $10.50, $3 and $10 respectively. Write C. Paulsen, 11431 Indiana Avenue, Chicago, Ill.

FOR SALE.—Four-cylinder Pierce motorcycle; good running condition; looks like new; tires O. K.; good speedometer; new Schebler carbureter; also Breeze if desired; getting 1910 Pierce; immediate delivery for $215. Herbert S. Havens, Red Hook, N. Y.

1910 INDIAN FOR SALE—Brand new at attractive discount. Write me immediately. P. S. McLean, 23d street, Y. M. C. A., New York City.

FOR SALE—One single 1907, one twin 1908, "CURTISS" motorcycles, in good running order. Best offer takes them. C. W. Henderson, Box 305, Flemingsburg, Ky.

GREAT MOTORCYCLE BARGAIN—1909 Indian belt drive, 5 h. p. twin, magneto, horn, speedometer, extra inner tube, stand and tools, used as agent's demonstrator; always kept in perfect condition; run only one thousand miles; value when new, with extras, $300. Price now, $200. H. J. Allington, Saginaw, Mich.

WANTED—Indian loop-frame "twin," "30.46," or "Pierce 4." Address Mr. Pittsburg, care of MOTORCYCLE ILLUSTRATED, New York.

FOR SALE—1909 3½ h. p. Thor motorcycle; new last fall; used very little; $150. Also tandem attachment, never used, cost $15; $10 takes it. Lock Box 72, LaFayette, Ind.

WRITE for description, photo and price of an Indian Twin, almost brand new in every respect. A snap for quick sale. "Snap," care of MOTORCYCLE ILLUSTRATED.

FOR SALE—1909 twin cylinder 5 h. p. chain drive Indian. Extras: B. & C. two speed transmission, Prest-O-Lite tank and lamp. Price $210. Excellent condition. Frank Runyan, Jewell, Kans.

GRIFFON MOTORCYCLES and parts, 2¾ h., $150; 3½ h., $200; 5 h., $250. Call or write for appointment to see same. G. V. Cochrane, 2 W. 125th street, New York City.

FOR SALE.—Two 1909 five h.-p. red loop frame, twin cylinder Indians, Bosch magneto; tires and engines in fine condition; one at $160, the other $180. Will ship anywhere C. O. D., subject to examination. Carl W. Bush, 51 William street, Newark, N. J.

FOR SALE.—At a sacrifice, 1909 Royal Pioneer with accessories; ridden 300 miles; guaranteed perfect condition; cost $265; sell $180 cash. H. A. Wilkinson, Ames, Iowa.

SAVE $35—Buy my Pioneer, ordered for delivery in April, $230; cost $265. Walter Cahill, Akron, Ohio.

FOR SALE.—Bargain for quick buyer. 1909 Curtis motorcycle, twin cylinders, six h.-p. Engine and entire machine overhauled this month at factory. Good as new. New Bailey 'tread tires. New Twentieth Century light. Extra belt; cyclometer; two extra gear wheels for speeding. Fully equipped. Reason for selling, will buy automobile. Price, $170. Answer quick if interested. E. M. Bloom, Troy, Pa.

FOR SALE—Curtiss 1909. 3½ h. p., spring forks, luggage carrier, stand; new in September; first-class running order guaranteed; new N. S. U. belt; sell $160, to buy 1910 model. W. B. Bell, Van Buren, Arkansas.

MISCELLANEOUS

WANTED—Capital to manufacture up-to-date motorcycle and aeroplane engines; by a mechanic who has made a thorough study of the foreign practice in light engine construction, and who has had unlimited experience in motorcycle and automobile manufacture. For particulars address "Capital," care MOTORCYCLE ILLUSTRATED.

WANTED.—A Motorcycle, condition no object if cheap. Wolke Cycle Co., Louisville, Ky.

WANTED.—Motorcycle; preferably Indian or N. S. U., with or without Tri-Car Attachment; 5 h.-p.; good condition; 1908, 1909 or 1910 model. Desire to pay one-half cash and balance in one month. References given. J. A. Barrows, P. O. Box 505, Schenectady, N. Y.

WANTED—Tandem attachment for motorcycle. Supancig, 257 West 125th street, New York City.

AGENTS CARDS, ETC.

ARE you wanting an English motorcycle? You know they want a lot of whacking. We shall be pleased to quote you for a machine delivered duty free upon request. Maudes Motor Mart, 136 Great Portland street, London W, also at Powell street, Halifax, England.

WANTED—Motorcyclists to know that we carry a full line of spare parts for "CURTISS," "ROYAL PIONEER," "R.-S.," and "INDIAN" Motorcycles; as well as the best variety of highest accessories manufactured. Reliable repairing done on the premises. Tiger Cycle Works Co., 782 Eighth Avenue, New York. 'Phone, 1268 Bryant.

MOTORCYCLES thoroughly overhauled and repaired; agents for Thor and Excelsior motorcycles; supplies and sundries. Bravenor & Ruderman, 1041 Bedford avenue, Brooklyn, N. Y.

SECOND-HAND M. M. BARGAINS—Exhaust Whistles, Hand Idlers. M. M. Branch, 895 Main street, Buffalo, N. Y.

SECOND HAND BARGAINS.—Any make of motorcycle; all machines in good condition. Parris, 2208 N. Broad street, Philadelphia, Pa.

IF IT IS a second-hand machine you want, write to A. D. Cook, 111 Monroe avenue, Rochester, N. Y.; Curtiss Agency.

BARGAINS in accessories. Always on top. We have the largest stock and lowest prices in America. Write today for catalogue. Motorcycle Equipment Co., Hammondsport, N. Y.

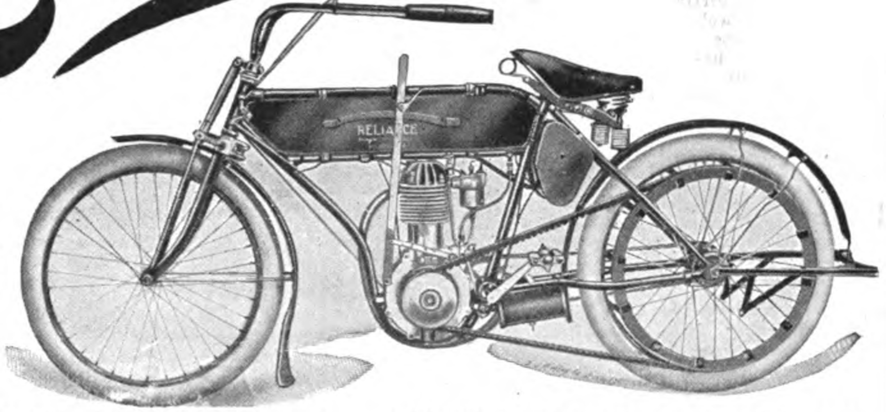
FOR SALE—Three 1909 M. M. Magneto specials, $100, $125, $150. Kobbe, 150 Main street, New Rochelle, N. Y.

WANTED.—A Live Agent for Tourist Two-Speed Motorcycle,

and K. & R. two-speed gear. No pedals; starts with a crank. Can be applied to any BELT-DRIVEN motorcycle. For information address Post Motor Agency, New Canaan, Conn.

Kindly always mention the paper when writing to advertisers.

Reliance



A COUPLE OF FEATURES:

Truss **SPRING** Fork, the most flexible and enduring made.

Two-Speed and Free Engine Transmission Gear, the **FIRST** practical, compact arrangement made. Largest Clutch, Largest Gears and Largest Wearing Surfaces. One lever control.

With this transmission the rider can start from standstill on the steepest hill. An absolute necessity for the construction of the perfect motorcycle. Full details in our catalogue, let us send you one.

RELIANCE MOTORCYCLE CO., (MEMBER M. M. A.) OWEGO, N. Y.

Makes Night Riding Safe

Scores of accidents are due to feeble and treacherous lights. The pleasure and safety of the motorcyclist are assured when the pathway is flooded far ahead with the powerful, unflickering rays of

PREST-O-LITE Gas Tank

Steady, dependable, strong—this matchless light for motoring is worth more than all the accident insurance you can buy.

Prest-O-Lite is used almost universally by automobilists. Thousands of motorcyclists have learned its convenience and real economy. The Prest-O-Lite Motorcycle Tank is 12 inches long, 4 inches in diameter and weighs only 7 pounds.

Costs Less Than a Penny an Hour

Gives you 80 hours of perfect light (using a 1/8 ft. burner). Exchange empty tank for full one at a cost of only 60 cents. Exchange agents everywhere—5,000 of them.

The original investment is $10 for the first tank—but remember, a Prest-O-Lite tank never becomes "second-hand." It is always in demand —always a saleable article.

See your dealer today or write us

The Prest-O-Lite Co., 246 East South St.,
Indianapolis, Ind.

Branches at New York, Boston, Philadelphia, Cleveland, Chicago, Detroit, Providence, Minneapolis, Omaha, Dallas, Los Angeles and San Francisco.

TIMING OF AMERICAN RACES.

WHILE I have taken up a permanent residence in England, I am still a patriotic American, and it hurts me exceedingly to see these constant reflections by Englishmen upon American records. Were there any justification for them, it would be regrettable. Since, however, American records are absolutely beyond question, why does not the F. A. M. take steps to have them recognized by the A. C. U.? America may be a big country, and Americans may think that any country outside of America does not interest them; but the fact remains that there are more machines in this country, and racing was indulged in here long before the Americans had realized the importance of the motorcycle.

As a resident in this country for the past eight years, I can honestly say that English timing and time-keepers are beyond suspicion. Every English timer at motorcycle races is appointed by the Royal Automobile Club of Great Britain, and their watches must be certified at the Kew Observatory as being correct before they can receive their appointment from the R. A. C. Now, what I would particularly like to know is, are the American timers' watches likewise certified by the United States Government, or any association of jewellers who are qualified to examine and certify to the correctness of watches? If they are not, certainly our English friends have some justification for refusing to accept American records.

Of course, you and I know that American records are as "clean as a whistle and as honest as the day is long." But the Briton insists upon being "shown."

London, Eng. W. H. WELLS.

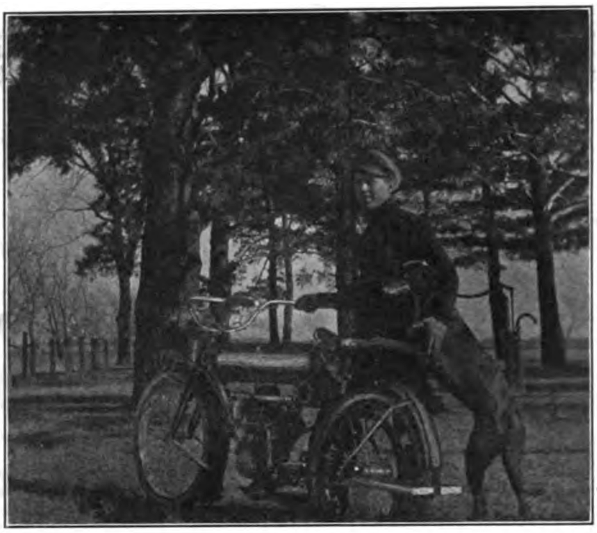
THE Pfanstiehl Electrical Laboratory, of North Chicago, in order to push its rapidly growing coil and magneto business, has increased its capital stock from $50,000 to $75,000. This company has established a very fine motorcycle trade.

THE Tampa Motor Car Co., Tampa, Kan., is pushing the M. M. in that city. Two of the big 7 twins were shipped to that firm last week.

THE G & J Tire Co.'s New York Branch, now located at 10 West Sixtieth street, will be removed to 1924 Broadway, near Sixty-fourth street, the first of next month.

R. E. HEGNER, of McGill, Nevada, has taken the agency for the M. M. He is trying to form a club. It will be affiliated with the F. A. M.

"THE THREE OF US."



From a Photo Contributed by Frank C. Lewis, M. M. Agent at Lee's Summit, Mo.

THE Riverside Club has gotten the San Bernardino mile dirt track in the best possible shape, and stock machines like the Excelsior and Harley-Davidson are doing a mile in 1:10 and even better.

A DIVIDEND of five per cent. has just been paid by Stanley W. Dexter, referee in bankruptcy, to the creditors of the Ovington Motor Co.

A. G. MOON, of Delphos, O., recently signed up with the M. M. people; he is a hustler and will sell in Van Wert County.

SONNEBORN'S Sporting Goods House in LaPorte, Ind., has taken on the Racycle.

"The Bosch Magneto is the Make That Others Try to Equal in Quality."

Springfield Republican, March 3, 1910.

The reason why the Bosch Magneto is emulated by other manufacturers is that Bosch Equipped motorcycles, motorcars, motorboats and aeroplanes establish the great endurance, speed and reliability records.

The Manufacturers of the following Motorcycles Equip with Bosch Magnetos:

BRADLEY
"F. N."
CROWN
HILAMAN
HARLEY-DAVIDSON
INDIAN
MERKEL
MARATHON
"M. M."
MARVEL
"N. S. U."
READING-STANDARD
ROYAL
THIEM
THOR
YALE

SPECIFY THAT YOUR MOTORCYCLE BE BOSCH EQUIPPED

A Copy of the Illustrated Bosch News will be sent on request. It's yours for a postal

BOSCH MAGNETO COMPANY

223-225 WEST 46th STREET, NEW YORK

CHICAGO BRANCH
1253 MICHIGAN AVE.

SAN FRANCISCO BRANCH
357 VAN NESS AVENUE

DETROIT BRANCH
870 WOODWARD AVE

IS YOUR MOTORCYCLE INSURED

AGAINST DAMAGES?

THERE IS BUT ONE WAY—THE ONLY WAY

Thor
TRADE MARK

COASTER BRAKE

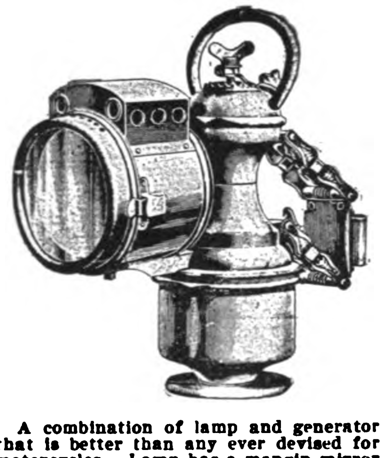
Built by people who know what they are doing and
what you need. Insist upon it in your equipment

AURORA AUTOMATIC MACHINERY COMPANY
Licensed Manufacturer ***Thor* Building, Chicago, Ill.**

Mr. Dealer! Our Goods Will Help To Increase Your Business

They will make friends for you. Motorcyclists who know that you handle our line will frequent your place to see the new goods. We are the largest importers of motorcycle accessories in this country and the first to import new novelties. You have no idea how much difference our goods will make on your trade. Suppose you write for our trade discounts.

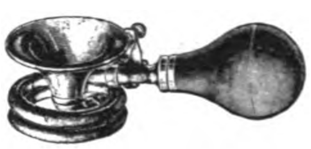
COMBINED LAMP AND GENERATOR



A combination of lamp and generator that is better than any ever devised for motorcycles. Lamp has a mangin mirror lens that projects a powerful light. Generator is very simple in operation. Complete outfit weighs only 23 ounces. Bracket on any motorcycle will fit it. Supplied in nickel only.

No. 88. Price, - - - - $5.00

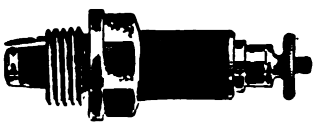
TRIPLE TWIST FROG HORN



Used mostly on motorcycles, runabouts, and on rear of tonneaus. Triple-twist construction produces a deep penetrating tone. Supplied in nickel or brass.

No. 10, Bell 3¼ ins., Price, - $2.25
No. 11, Bell 4 ins., Price, - 3.00

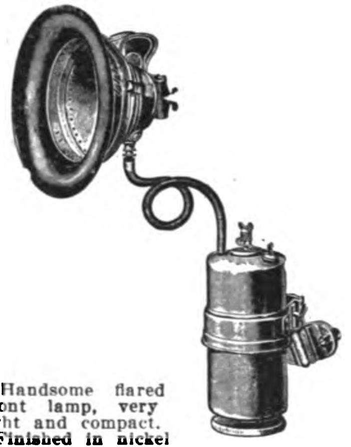
MICA MOTORCYCLE PLUG



Constructed from amber mica, with composition platinum points, ensuring positive spark.

No. 160, ½ inch and Metric, Price, 75c.

MOTORCYCLE LAMP SETS



Handsome flared front lamp, very light and compact. Finished in nickel and with nickel fittings. Interior of lamp highly polished, projecting a brilliant light. Generators are very simple in operation.

Set 55A and 55B Lamp 5 ins. diameter, 4½ ins. depth, and generator height 5½ ins., diameter 2½ ins.

Price, Complete, - - - $6.50

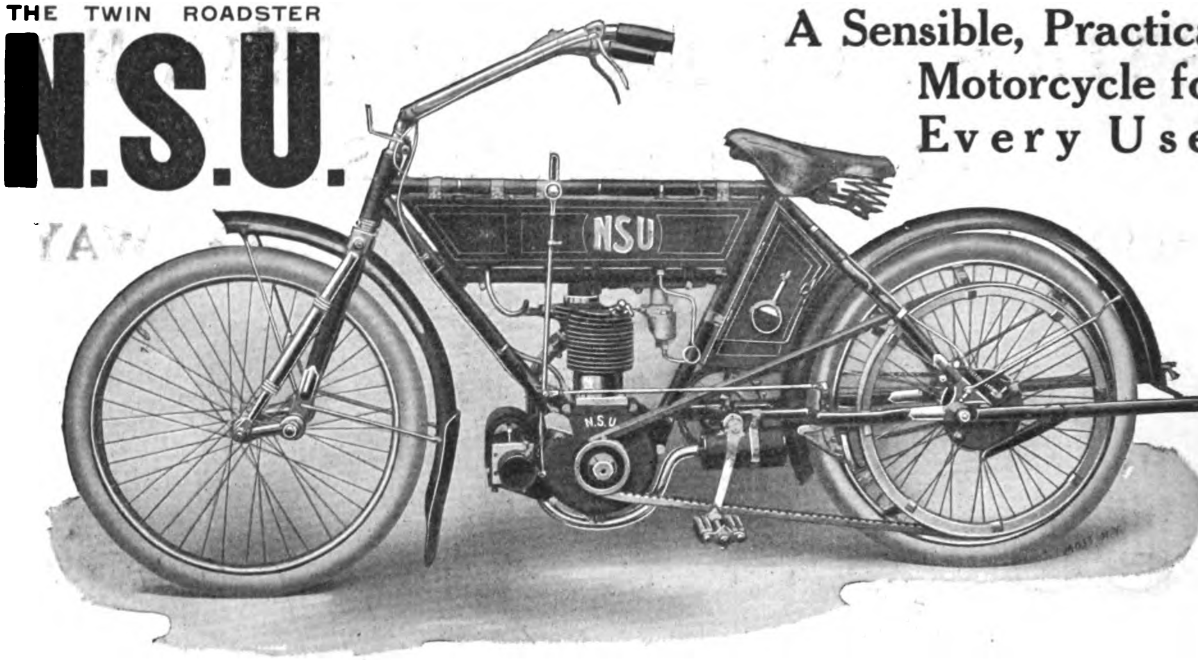
SEND FOR OUR NEW CATALOG AND TRADE LIST

THE MOTOR CAR EQUIPMENT CO., 55 Warren St., New York, N. Y. Wholesalers, Importers and Manufacturers

THE TWIN ROADSTER

N.S.U.

A Sensible, Practical Motorcycle for Every Use.



1000 Points and a Gold Medal was awarded to the little N. S. U. Twin Cyl. Roadster in the severe quarterly trials of the N. Y. M. Club. Over a rough, hilly and sandy course of 150 miles this little but MIGHTY motorcycle showed its wonderful abilities to be without an equal. Lighter in weight and three times smaller in capacity than the big twins, it went through the trial as swiftly and as easily as the others, yet more economically and with less fatigue to the rider than any motorcycle in the trial.

Select this machine if you want real satisfaction. In using you do not feel the weight, it has no burdens, it gives you no feeling of anxiety—just a superb, quiet, vibrationless feeling as if riding on air. Our new Catalogue "M" goes thoroughly into the many advantages. Write for it.

N. S. U. MOTOR CO. Members M. M. A. **206 West 76th St., New York City**

"RIDERS CAN JUDGE"
of
THE GOODRICH WHITE HEAVY TREAD MOTORCYCLE TIRE

Manufactured by THE B. F. GOODRICH CO., Akron, Ohio

Fidelity Fire Insurance Company of New York

ARTHUR J. VINE, Agent,
LAKE LINDEN, MICH.

46 Cedar Street, New York
WESTERN DEPARTMENT
280 La Salle Street, Chicago, Ills.

The B. F. Goodrich Company,
Akron, Ohio.

Lake Linden, Mich., March 17, 1910.

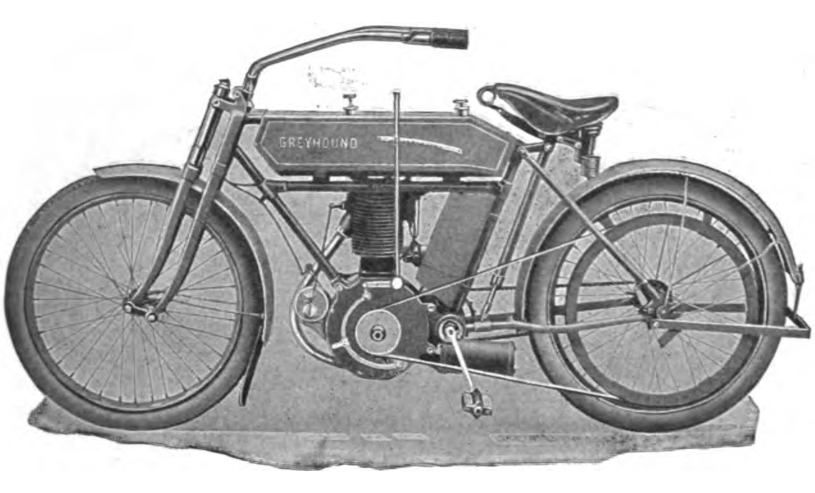
Gentlemen:—

After riding many makes of motorcycle tires, causing me a great deal of expense for repairs and worry while riding them, I received your magazine "The Clincher." While looking over same, I noticed what you said in regard to your Goodrich White Tread motorcycle tires. I immediately sent for one for my back wheel and must say it came the nearest to a puncture and wear-proof tire of any I have ever seen. I rode it about 4,000 miles last summer and a great deal this winter and received only one puncture and it now looks practically the same as new. This is remarkable considering the rough, rocky roads in this Northern country.

If the Goodrich White Tread is anything in the future as it was in the past, it will be the only tire for me.

Yours Truly,
A. J. VINE.

THE SPLENDID GREYHOUND



is splendidly fulfilling our expectation that it would be one of the "best sellers" of 1910.

It is good to sell because it is so very good to ride. With its big, husky motor, up-to-date features and its unequalled comfort equipment it is deservedly popular. We want every man who is interested in finding the best motorcycle, either to ride or to sell, to find out about the GREYHOUND. Catalog free. Write us about any motorcycle matter that interests you.

GREYHOUND MOTOR WORKS

Members Motorcycle Manufacturers' Association

1459 Niagara St., Buffalo, N. Y.

SALES AGENTS: Metropolitan District—THE BROWN-DEWEY CO., 1697 Broadway, New York, N. Y. Illinois, Indiana and Wisconsin—WHIPPLE, "The Motorcycle Man," 923 W. Jackson Blvd., Chicago, Ill. California—GEORGE E. HENGERER, E. San Gabriel, Cal.

Mr. Agent:

DO you know why you are not selling motorcycles to the class of people that used to buy high grade bicycles? Do you know why they are walking, or riding in trolley cars or automobiles? Do you know why they have not purchased motorcycles?

The reason is simply this: They don't know how good a motorcycle really is. They have never ridden a 1910 M. M. If you had one of these superb machines, fitted with the M. M. free engine clutch on your floor, that you could take around to this man's house and show him how simple, how easy and how smooth the new M. M. "4" was to ride and to operate, you would get the order.

The strong features of the M. M. "4" are smoothness of operation, quiet running and, when fitted with clutch, it is easily started and handled in traffic.

You can't get away from the fact that the ordinary man is not willing to pedal his head off with a low gear, balance a heavy machine and dodge teams in trying to start. He wants a machine that starts like an automobile.

We are making deliveries promptly. Wire us for agency reservation today.

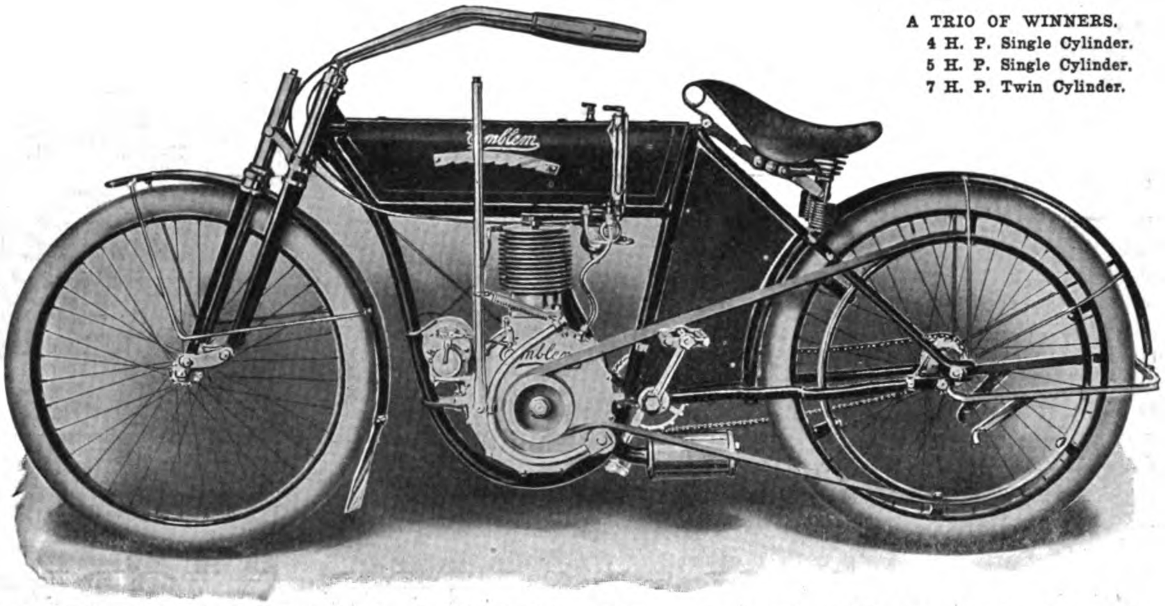
AMERICAN MOTOR COMPANY

716 CENTRE STREET BROCKTON, MASS.

Class, Power, Speed and Satisfaction are the Appealing Features of the

1910 EMBLEM MOTORCYCLES

A TRIO OF WINNERS.
4 H. P. Single Cylinder.
5 H. P. Single Cylinder.
7 H. P. Twin Cylinder.



EMBLEM MANUFACTURING CO., Angola (Erie Co.), N. Y.

ALSO MANUFACTURERS OF THE EMBLEM BICYCLE.

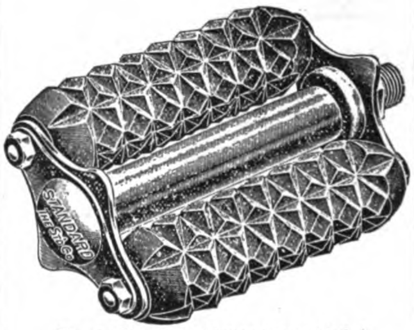
DISTRIBUTORS.

John T. Bill & Co., Los Angeles, for California
Meredith Cycle Co., Salt Lake City, for Utah.
Alexander-Sewald Co., Atlanta, Ga., for the South
F. M. Spinning, Seattle, for Washington.
Ballou & Wright, Portland, for Oregon.
Henry Keidel & Co., Balt., Md., for Va. & W. Va.

STANDARD MOTORCYCLE PEDALS

Wide Tread Pedals **combining** ***Comfort, Utility*** **and** ***Reliability.*** **Constructed of the** ***Best*** **materials by** ***Skilled Mechanics.***

PRICE, $3.00 PAIR



No. 3, Standard Motor Cycle Pedal

Emergency Axles, Sager Motorcycle Toe Clip, Diamond E <E> Spokes. Bridgeport and Standard Pedals. Sager and Standard Toe Clips.

Send for our Descriptive Circulars

THE STANDARD COMPANY

Torrington, Conn., U. S. A.

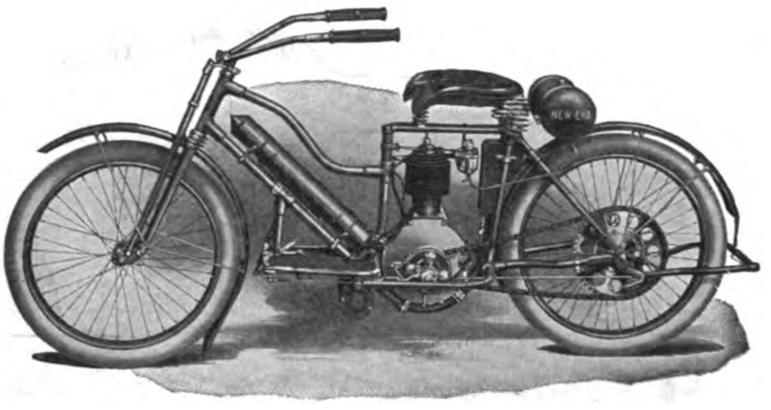
A NEW ERA IN MOTORCYCLING

was begun when

The New Era Auto-Cycle

made its appearance

It marked the beginning of *REAL* practicability and comfort.



Patent Pending.

Its long, low frame and spring-suspended, upholstered form seat and footboard (instead of pedals) makes it available for all ages and sizes and conditions of mankind; its two-speed transmission makes it master of any and all hills and renders possible the slow pace so necessary to safety and comfort on rough country roads and crowded city streets; its free engine (engine started by a crank like an automobile) makes it possible to start ANYWHERE from a standstill and without even "jacking up" the machine. Lots of these ideas are being and will be copied, but don't you pay for manufacturers' experiments. You don't have to do so when the New Era offers them in perfected form.

Write for advance circular and agency proposition.

"Dear Sirs: In regard to inquiry, can say that the New Era Auto-Cycle is much beyond my expectations. I purchased my machine April 11, 1909, and up to the first of the year 1910 I had ridden something over 10,000 miles, and have a good machine yet. For your work or any other, racing excepted, I would not give one 'NEW ERA' for a car load of other makes for everyday use. Mud, snow, hills, level ground and good roads are all the same to the 'NEW ERA.' I am in the fire insurance business and use my machine in all kinds of weather and on all kinds of roads. Yours,
"Greenville, Ohio, Feb. 18th, 1910. O. P. McGRIFF."

The New Era Auto-Cycle Co.

No. 22 Dale Ave. Dayton, Ohio

In deciding the tire question for this season, it will be to your advantage to pay special attention to this point,—

Is the tire you select stiff and hard or is it resilient and full of life?

There is no advantage in a stiff, hard tire except to the maker—allows him to cheapen his materials somewhat.

A resilient, pliable, easy-riding tire can be made—as Morgan & Wright White Tread Motorcycle Tires are made—that is actually tougher and will give you more mileage than the old stiff hard kind. Such a tire will add greatly to your enjoyment of motorcycling and save you dollars and dollars worth of wear and tear on your machine.

MORGAN & WRIGHT WHITE TREAD MOTORCYCLE TIRES
are resilient because pure Para Rubber is resilient and that is what they are made of, with certain ingredients added to give them leather-like toughness.

They will give you more miles of service and more comfort in riding than you have ever been used to receiving from pneumatics.

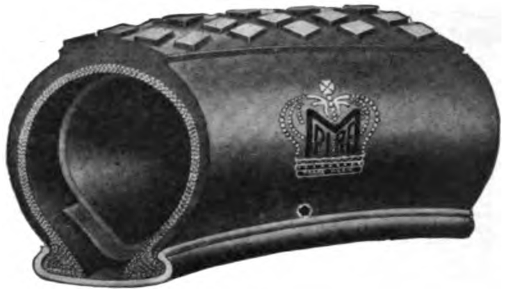
MORGAN & WRIGHT : : : : DETROIT

Empire Tires
WEAR LONGEST

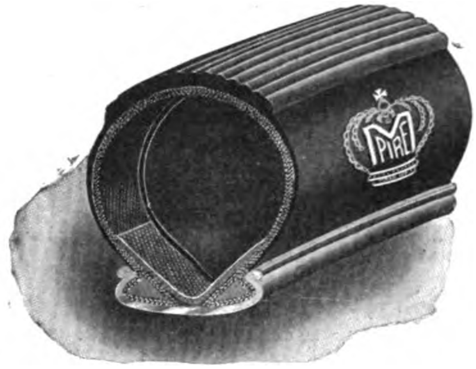
Empire molded motorcycle tires are extra heavy and extra strong. They are made to give proper service on the heavier and faster motorcycles now being generally made. The best quality of Sea Island fabric is used—closely woven, of the same type as used in automobile tire construction. High class rubber is used throughout, which will give great wear and withstand great abuse.

CORRUGATED TREAD TIRE

This design will aid greatly in preventing side slipping, without detracting from the resilience or easy-riding quality of the tire in straight riding.



The Checkered Tread is the best non-skid tire ever offered for motorcyclists' use. It is very handsome in appearance. The rubber used in the tread is of a composition that gives the largest possible service. One of these tires ought to be on the rear of every motorcycle, the year around, as a guarantee against dangerous side slips.

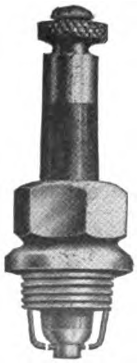


EMPIRE TIRE COMPANY
TRENTON, N. J.

1910 PITTSFIELD 1910

SPARK COILS, SPARK PLUGS, SWITCHES, TIMERS AND DISTRIBUTERS AND MAGNETOS

MADE IN AMERICA ***HAVE NO SUPERIOR IN THE MARKET***



Magneto Spark Plug

The following testimonial was recently received by the Pittsfield Spark Coil Co., unsolicited.

"Columbus, Ohio, Oct. 11th, 1909.

"PITTSFIELD SPARK COIL CO.,
"Dalton, Mass.

"Gentlemen:—

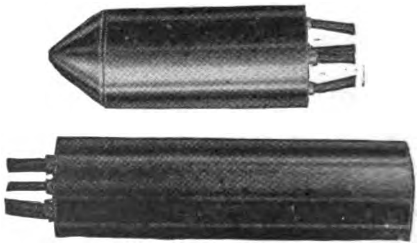
"I think you will be interested to know I am using the best coil "PITTSFIELD," on my run from San Francisco to New Orleans and New York.

"I have covered 5,763 miles, 2,022 on railroad cross ties, and have had a terrible trip. Have been out thirty-seven days and had no ignition trouble. Your coil has stood unreasonable endurance, exposed to water, heat and cold in many States.

"I am an old-time rider and one who knows a good thing.

"Yours truly.
(Signed) "H. F. MERIWEATHER."

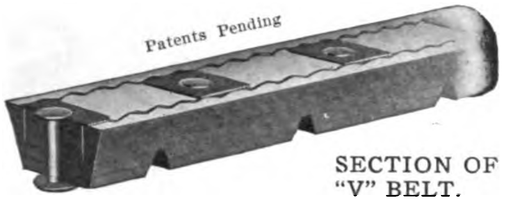
A Line of Pittsfield Goods is carried by H. V. Greenwood, 166 Lake Street, Chicago



Write today for particulars, catalogues, price lists and instructions.

PITTSFIELD SPARK COIL CO., Flansbury Ave., Dalton, Mass.

Sales Representatives: New England, W. J. Connell, 36 Columbus Avenue, Boston. **Atlantic States,** Thomas J.Wetzel, 17 West 42nd Street, New York. **Central States,** K. Franklin Peterson, H. V. Greenwood, 166 Lake Street, Chicago **Michigan.** L. D. Bolton, 319 Hammond Building, Detroit. **Pacific Coast,** The Laugenour Co., San Francisco.



SECTION OF
"V" BELT.

TO ESCAPE BELT TROUBLES

You must necessarily have your machine equipped with a belt that **CANNOT** make trouble.

There is but one belt made that gives no trouble.

This belt is made of a leather tanned by a secret process for this particular purpose; is so designed, built up, and reinforced that it meets every strain successfully; does not slip; is not affected by water, oil, grease or climate; requires no dressing; and will outwear any other belt on the market.

Isn't that the belt for you? Yes? Then note carefully the name, the

SHOEMAKER STANDARD MOTORCYCLE BELT

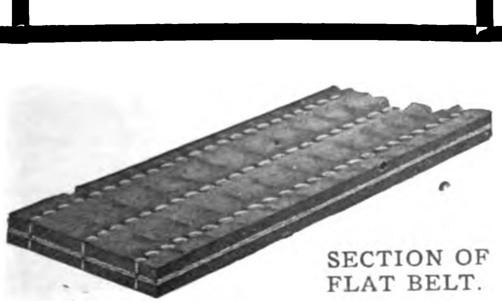
("V" Shape or Flat)

and **SPECIFY** that it shall be **PUT** on your new machine.

A booklet telling all about them in detail will be sent free on request.

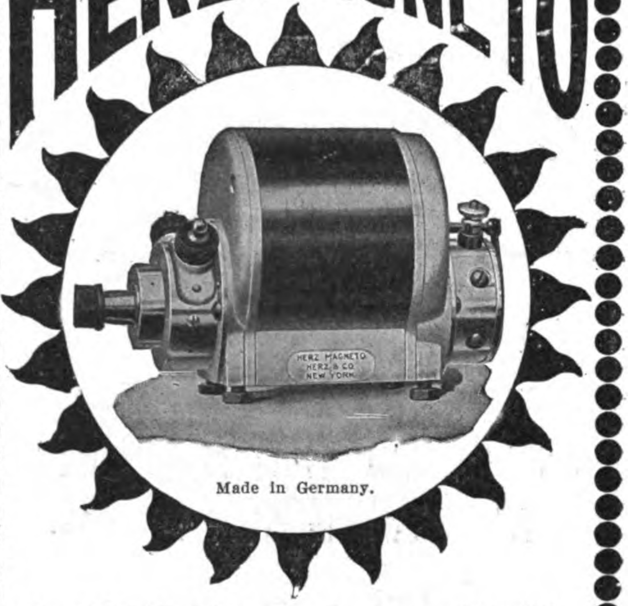
If you now ride, order these belts direct from the makers, the

APEX BELTING CO.
240 CHESTNUT STREET
PHILADELPHIA



SECTION OF
FLAT BELT.

HERZ MAGNETO



Made in Germany.

On YOUR Motorcycle means a FAT, HOT ARC FLAME at the first ¼ turn of your pedal and ever after. It's the strongest, most efficient, lightest and most compact Magneto made.

Over 15,000 on American 1910 Motorcycles.

EQUIPMENT ON:	EXCELSIOR	HARLEY-DAVIDSON
	PIERCE	GREYHOUND
	THOR	EMBLEM
	YALE	WAGNER

Thousands of Testimonials.

HERZ means absolute dependability.

Mr. E. W. Rietz says: "It's the best Magneto made. My machine will run just as slow as a battery machine and is a lot more reliable."

THE HERZ-PLUG

No Cleaning

No Taking Out of Motor

Proof Against Oil

Proof Against Soot

BOUGIE MERCEDES
HERZ & CO.
NEW YORK

"Bougie Mercedes" The Famous STONE PLUG

Absolutely Self-Cleaning

A Great Saving To You

The Greatest Value in Spark Plugs Ever Offered.
Absolutely Guaranteed One Year.
PRICE, POSTPAID, $1.50

HERZ & CO., 295 Lafayette St.
NEW YORK
(CIVIL ENGINEERS.) WRITE FOR NEW CATALOG.

The Neverout
TRADE MARK

MOTORCYCLE OIL LAMP

SHOWING A RED REAR LIGHT

¶ The Neverout burns kerosene ten hours with one filling, and will stay lighted under any and all conditions. ¶ All riveted—will not rattle apart over roughest roads.

¶ Made in gun metal, brass or nickel finish

AN OIL LAMP THAT MAKES MORE LIGHT THAN MOST GAS LAMPS

The Neverout
TRADE MARK
PREVENTS ACCIDENTS
NOTE REAR SIGNAL
FOR MOTOR CYCLES
PATENTED

Lamp Weighs Only 12½ Ounces

GUARANTEED TO STAY LIGHTED OR MONEY REFUNDED

¶ The Neverout is equipped with a PATENT GLASS COVERED REFLECTOR OF GERMAN SILVER, instantly removable, never loses its original brilliancy.

¶ The only perfect and reliable motorcycle lamp made.

¶ Double clamp bracket furnished, fastens lamp securely to fork of motorcycle. No danger of shaking off, and SHOWS RED REAR DANGER SIGNAL.

Sold by leading jobbers and dealers everywhere

ROSE MANUFACTURING COMPANY

933 ARCH STREET, PHILADELPHIA, U. S. A.

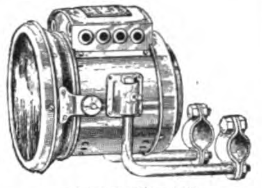
The Neverout complies with the laws of the various States and Municipalities

---

THE 20TH Century
HEAD and SEARCHLIGHTS
FOR MOTOR AND BI-CYCLES
LIGHT THE WORLD

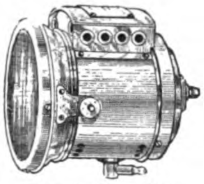
Model No. 10, with Brackets 11, 12 and 13.

This Lamp and Generator Fit Every Motorcycle



Model No. 102, with Bracket No. 14¾.

A wonderful, an impossible thing, you say. Well it seemed so to us, but we are able to guarantee it.



Model No. 101, for Flat Bracket.

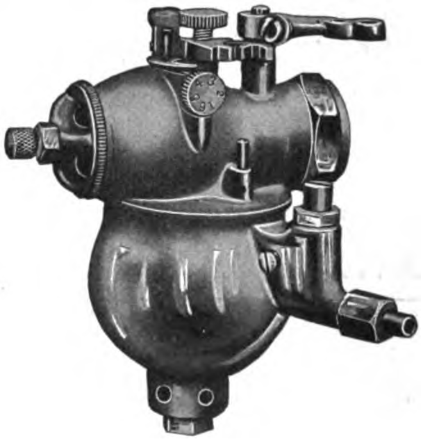
Write us, ask for "more" about this leading light.

20th Century Mf'g Co

19 Warren Street
NEW YORK

Model No. 3, Motorcycle Tail Lamp.

Heitger Model F 1910
Motorcycle Carbureter



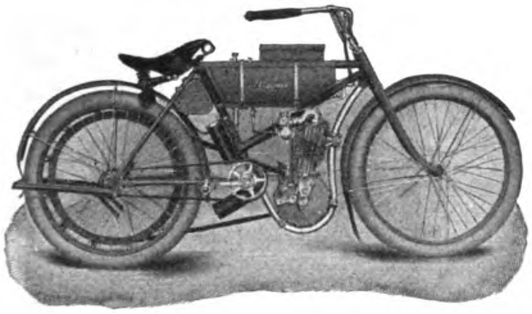
¾ INCH FEMALE THREADS, CUT ½ FULL SIZE.

It has mechanical control of gasoline feed to mixture, independent gasoline adjustments for both low and full speeds, indexed adjusting screws, throttle universal, can be set to operate from either side, straight line gasoline connection, new design float chamber, can be swiveled to any position, its shape reduces splashing of liquid to the minimum, handy priming stem, improved, durable, reliable air valve, all gasoline adjusting screws indexed, and ball rachet retained, all balls and springs of bronze. ¾-inch female threads. List $10.00. Fully guaranteed.

HEITGER CARBURETER CO., Indianapolis, Ind.
208 WEST SOUTH STREET

Wagner

MOTOR CYCLES



FOR THE DISCRIMINATING BUYER

Who wants something "A Little Better"

Catalog on Request

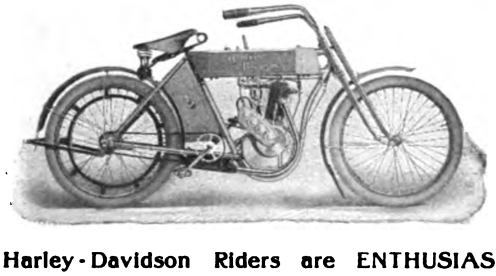
WAGNER MOTORCYCLE CO.
ST. PAUL
AND DEALERS EVERYWHERE

WHY JUGGLE

WITH THE FACTS ANY LONGER
When down in your heart you know that the

HARLEY-DAVIDSON

Is by far the BEST BUY in the Motorcycle field.



Harley-Davidson Riders are ENTHUSIASTIC MOTORCYCLISTS, and get more real enjoyment out of their machines than riders of other makes. They do not have to spend their time "tuning up" and "adjusting" their mounts in order to keep them running.

BETTER GET IN TOUCH WITH OUR
DEALER IN YOUR LOCALITY

Harley-Davidson Motor Co.
MILWAUKEE, WIS.

WARNING!

The attention of motorcyclists is called to the fact that the success of the

SPLITDORF

Motorcycle Plug

has caused a new imitation of it to appear on the market.

Users are warned that these spurious plugs are not even a good counterfeit and buyers of same will find they have thrown away their money.

For your own protection, see that the SPLITDORF trade mark is stamped on the Plug.

This is a guarantee of SPLITDORF quality.

SPLITDORF
NEW YORK

SPLITDORF Motorcycle Plugs are guaranteed one year. Insist on the genuine

C. F. SPLITDORF

Walton Ave. and 138th Street
Branch, 1679 Broadway
NEW YORK

CHICAGO SAN FRANCISCO DETROIT BOSTON

Write for this book "in color"

WHOLESALE
F. F. Rick & Co.
517-519 MAIN ST., BUFFALO.
PIONEERS
CYCLES & SUPPLIES
P.O. BOX 326
LONG-DISTANCE PHONES
FACTORY 376-378 OAK ST.

Copyrighted in 1910 by F. F. Rick & Co.

The Team
OF FOUR RIDERS ON
FLYING MERKELS

was the *only* team to finish with a perfect score in the New York Motorcycle Club's Quarterly Trials on April 3rd.

In addition to the individual riders entered, there were five teams of four riders each (including The Flying Merkel).

Simply **another** demonstration of The Flying Merkel living up to expectations—and then some.

If you want to know about the little ball-bearing motor that has carried her to victories—write for Catalog B. Maybe an **Agency** would interest you.

Merkel-Light Motor Co.
POTTSTOWN, PENNSYLVANIA
MEMBERS OF M.M.A.

Thor
The Motor Cycle Supreme

WORKMANSHIP
EXPERIENCE
SATISFACTION
POWER, SPEED

USED BY THOUSANDS
WHY NOT YOU?

AURORA AUTOMATIC MACHINERY CO.
Thor Building Chicago

WHY YOU, MR. DEALER, SHOULD SELL
THE MARVEL

Because it has the Curtiss 4-5 h. p. Overhead Valve Motor that no single cylinder motor can equal.

Because the Frame is strong and neat in appearance. The 2½ gallon Frame tube cannot break, dent or leak. Low saddle position.

Because the value is equal or better than any $250 Motorcycle, and yet sells for only $225.

Because nothing but the best of everything is used on the Marvel, including Bosch Magneto, Eclipse Free Engine Pulley, N. S. U. Two Speed Pulley, 2½" Tires, 1⅛" V Belt, and Sager Patent Spring Fork.

Because Its Saddle position, Correct shape, Sager Style Spring Fork, Long Wheel Base and Perfect Controls make it a very comfortable riding Motorcycle.

Because you can inspect each part without having to remove another part to get at it.

Because wherever the Marvel Motorcycle is seen there will immediately be a big demand for it, and you cannot afford to let your competitor sell it in your locality.

MARVEL MOTORCYCLE CO.
HAMMONDSPORT, N. Y.
Member M. M. A.

PFANSTIEHL COILS

FOR MOTORCYCLES ARE GUARANTEED FOR FIVE YEARS

The Famous Pfanstiehl Pancake system of winding, combined with a perfect balance of parts, and high grade construtcion, assures you of INDESTRUCTIBILITY, UNIFORMITY, RELIABILITY, and a strictly high grade coil at a reasonable price.

Constructed for use in connection with either 2 or 3 dry cells. Balanced to meet special requirements.

The New Pfanstiehl Motorcycle Magneto

FILLS A LONG FELT WANT

Strong and substantial in construction, though neat and compact in appearance.

Constructed by Pfanstiehl patented methods and covered by Pfanstiehl broad guarantees.

Not an experiment, but something a little more advanced than anything you have yet seen.

Don't fail to test this machine before closing contracts. Our prices will command your immediate attention and interest.

Pfanstiehl Electrical Laboratory
NORTH CHICAGO, ILL.

U.S. & FOREIGN
Reliance
PAT'S PENDING

REGULAR TYPE $1.00

The Regular Reliance is the famous "Spark in Water" plug known the world over as the plug that can't short-circuit. Electrically different from any other plug—with every part accurately machined, making them mechanically as well as electrically correct.

MAGNETO TYPE $1.25

Reliance
MAGNETO
PAT'S PEND
PLATINUM-IRIDIUM
ELECTRODE

The Reliance Magneto plug is designed along the Reliance principles, but built especially for service when the current is generated by a magneto. It is especially desirable and serviceable when an excess of oil is used.

Send to-day for interesting booklet—with it we send the most puzzling electrical novelty of the day—sent for the asking.

JEFFERY-DEWITT CO.

Spark Plug Manufacturers, 230 High St., Newark, N. J.
S. & F. Stephenson, Agents for United Kingdom, 19 Canning Place, Liverpool, Eng.
Armand Frey & Co., Agents for Continental Europe, Berlin, Germany.

MAKE YOUR OWN TEST

Try out to YOUR satisfaction

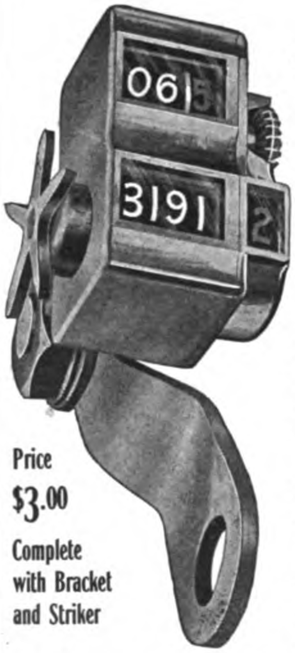
Diamond

Motorcycle Tires

Use them Hard—They're made to stand it—then you'll realize, as have all Diamond users, that you've found an Unequalled Motorcycle Tire Efficiency.

THE DIAMOND RUBBER CO.
AKRON, OHIO

Special Motorcycle Tire Booklet on request



Veeder

Motorcycle Trip Cyclometer

Price
$3.00
Complete with Bracket and Striker

Made heavy and durable for the hard usage it receives on the Motorcycle.

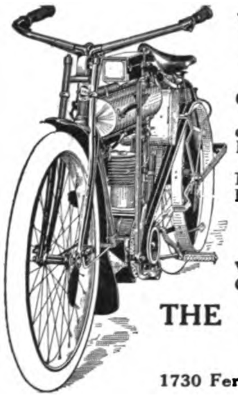
Adjustable Bracket fits all makes of machines.

Large and strong striker.

Made for 24 in., 26 in. and 28 in. wheels.

The Veeder Mfg. Co.
42 Sargeant St., Hartford, Conn.

Makers of Cyclometers, Odometers, Counters, Tachometers, Tachodometers and Die Castings



YALE MOTORCYCLES

Hold world's record for endurance. Operated at lowest upkeep cost of any. Ran 132 hours without fan or other cooling device and DID NOT OVERHEAT.

LONG STROKE MOTOR; SILENT MUFFLER; COMFORTABLE TO RIDE; EASY TO OPERATE.

RIDE A YALE—THEY NEVER FAIL

1910 Models are being delivered. Write to-day for agency proposition. Get our booklet, "What is Reliability?"

THE **CONSOLIDATED MANUFACTURING CO.**

1730 Fernwood Avenue, TOLEDO, OHIO

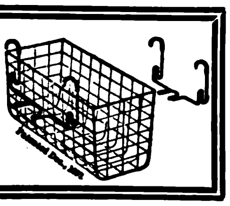
FREE COPY

Write today for a free copy of a $1.50 NEW MAGAZINE that is full of the information you should know about your Motorcycle.

PUB. BY MOTOR CYCLE EQUIPMENT CO

HAMMONDSPORT N.Y.

The Motorcyclist
A Motorcycle Magazine



Dowe's Bicycle Luggage Carriers

Best Thing for the purpose ever put on the market. In use all over the United States. ¶ Can put on or detach instantly with adjustable hook. ¶ Good sellers because the riders all want them and the price is popular. Write for Prices.

DOWE WIRE & IRON WORKS

Louisville, - - Kentucky

Now's the time to advertise in

THE MART

Your readiness to sell last year's machine

3 Cents a Word

SAGER CUSHION FORK

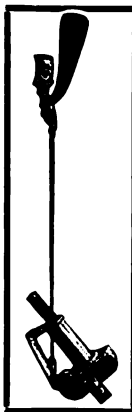
Often Imitated But Never Equalled.

Used as standard equipment on the

YALE ***HARLEY-DAVIDSON***
NEW ERA ***CURTISS***
MARVEL ***WAGNER***
ARMAC

When purchasing these motorcycles you are sure to get **The First and Best Cushion Fork**

J. HARRY SAGER, Rochester, N. Y.



The S-C-R-E-A-M Motorcycle Whistle

FITS ALL MOTORCYCLES

ONE PRICE $3.50 ONLY

It S-c-r-e-a-m-s and S-c-r-e-a-m-s "and then Some"

All whistles shipped by mail same day order is received. Price $3.50 and 10c extra for mailing.

THE SCREAM SALES CO.

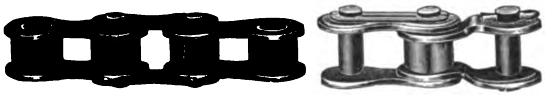
M. M. Building, - DALLAS, TEXAS

Duckworth Chains and Duckworth Connecting Links

—Make a Strong Combination—

Be Sure to Specify Duckworth.

Duckworth Chain & Mfg. Co., 40 Mill Street, Springfield, Mass.



FOR SAFETY AND SERVICE

It must be a SOLAR

That's the verdict of the makers of 80 per cent of the high-grade American Machines.

The test of experience has proved them to be the quality lamps for the quality Motorcycle—the only lamps absolutely reliable and dependable at all times.

You can have Solars on your Machine, if you insist.

BADGER BRASS MANUFACTURING CO.

Kenosha, Wis. New York City

MR. DEALER! Have you heard that the **1910 RACYCLE** Agency Proposition is a Clean-Cut Money-Maker? **WE HAVE THE MACHINE** and You the Facilities to Sell it. Let Us Get Together. Write Today for Particulars.

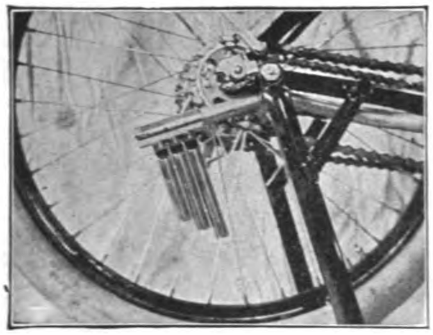
MIAMI CYCLE & MFG. CO. Middletown, Ohio

TWO BATTERY COIL!

With or Without Plug Switch. Single and Double Cylinder Types.

The most reliable and durable coil yet. Can be put in battery case with two batteries and will run you 1,000 to 1,500 miles. Write for particulars now.

MADE BY **CENTRAL INSULATING COMPANY, Lafayette, Ind.**



At last, a successful chime exhaust motorcycle whistle. Only $3.00. For twin cylinder machines only. Can be fitted to 1909 or 1910 Twin Indians in two minutes; only a screw driver required. Get on our mailing list for copy of our 1910 motorcycle supply catalogue.

AGENTS FOR INDIAN AND EXCELSIOR MOTORCYCLES

F. B. Widmayer, 2312 Broadway, N. Y. C.

The Absence of Vibration makes it pleasurable to ride

The Pierce Four Cylinder Motorcycle

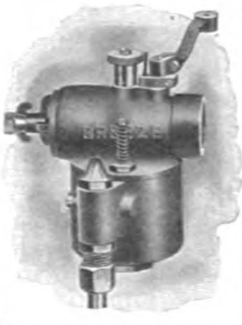
Besides this Vibrationless element, the Pierce Four is replete with numerous superior features, such as:

Four Cylinder Engine Shaft Drive (enclosed) Magneto Ignition Two-speed Transmission Force Feed Automatic Oiling System Free Engine Clutch Large Tubing; no Tanks

THE PIERCE SINGLE CYLINDER

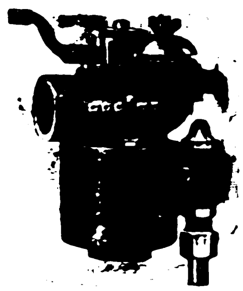
motorcycle is like the Four in smooth and easy running qualities. This model represents the most advanced ideas in Single Cylinder Motorcycle design and construction. Ask for Catalog "G."

THE PIERCE CYCLE COMPANY, - Buffalo, N. Y.



The Breeze Motorcycle CARBURETERS

made of polished aluminum, small parts of brass. Weighs fourteen ounces each, price $15.00. Special connections for popular machines included in price; 80 to 95 miles per gallon under normal conditions. Write for special literature. Send 25 cents for our Engine Trouble Text-book. 40 pages.



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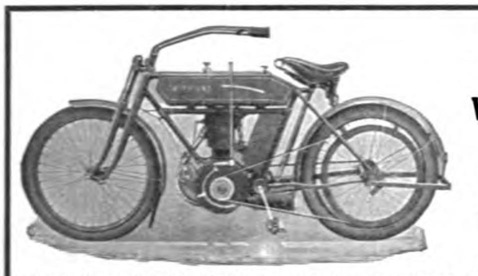

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MOTORCYCLE
ILLUSTRATED
Vol. V. No. 8. May 1, 1910

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FOR MORE EQUAL REPRESENTATION

A Few Rough-Hewn Thoughts on the Subject of Delegate F. A. M. Conventions—Arguments Pro and Contra, Mostly the Latter

AN F. A. M. delegate convention? Just so. But though the phrase is easily mouthed, what shall be the method and which the means whereby to bring about that consummation? Some say, and with no little display of judgment, that the F. A. M. is not yet large enough for this innovation. They admit that it must come in time, but insist that the organization is not yet quite ripe for the proposal. On the other hand, they acknowledge that "mob rule," so-called, may have or at least could have characterized the sessions hitherto held. The phrase is somewhat of an exaggeration, the purpose of using it being rather to convey the idea that under the present system there is no such thing as true representation, or anything approximating it. Instead, two years ago, the New Yorkers dominated the convention; last summer, the Indianapolis boys swayed it from stem to stern, being in position to do just as they pleased. This year, it will be Springfield, Philadelphia, Syracuse or some other place, but certainly not the entire country. Of course, those who, being of this or that community, could have practically controlled the various conventions, were usually willing to listen to reason and be fair. But the system is such that if they did not *want* to be decent, the poorly, inadequately represented balance of the F. A. M. would be helpless in the face of their overwhelming majorities in "packed" assemblies.

Committee to Consider the Subject.

It is true that we are picturing what may be, rather than what has been. But the exercise of a little forethought in the premises ought to be at least worth while. So, then, let us try to imagine what could be done with a view to solving the problem and to making future F. A. M. national meetings thoroughly representative of the national spirit, instead of merely local sentiment. By virtue of a resolution adopted at the special meeting in Chicago, the Constitution and By-Laws Committee was instructed to draft, for presentation to the next National Assembly of the Federation, a plan of action aiming to introduce a delegate system which, if approved by the convention, would become effective in 1911. The writer of this article introduced that resolution and has been requested by the president of the F. A. M. to publish some of his thoughts on the subject. He does so merely to make a start, hoping that the suggestions here roughly outlined will be productive of many better ideas in others' minds.

The Number of Delegates.

First of all, we have to deal with the *basis of representation* according to numbers. Suppose there were one delegate to every twenty-five or every fifty F. A. M. members, every State represented in the Federation being entitled to at least one delegate. If the number of delegates were proportioned on the basis of fifty, instead of twenty-five F. A. M. members, those communities having comparatively few Federationists would be better taken care of, relatively, in the apportionment of delegates, though only to a slight extent. On the other hand, representation on the basis of twenty-five would result in *a larger attendance* at the national sessions.

What about Proxies?

Of course, proxies would be permitted. But right here an important question arises. Would it be politic to permit a distant State to turn its proxies over to residents of another part of the country, that is, to F. A. M. members whose homes were nearer to the city in which the convention was held and who could attend without incurring large traveling expenses? Again, should a single delegate be permitted to cast the vote of his entire State? Under existing conditions, that plan might be advisable. It would probably lead the active and progressive F. A. M. clubs of far-away States to contribute towards the expenses of at least one delegate. An objection to this scheme is discoverable in the fact that most of the States would then confine themselves to a single delegate, thus reducing the number in attendance at the convention. We believe that nothing short of actual experience would demonstrate which plan was the better of the two. One or the other would have to be tried out to show how it would work in actual practice. Then, too, there is the third suggestion, as above advanced, that of allowing Federation members in one State to vote the proxies of another. Here's a dilemma which requires some thought and the help of experienced men.

Making Nominations.

Now, the nucleus of the F. A. M. as organized in the various States is the State Commissioner. The success or failure of the delegate convention plan would be largely of the making of these officials. In any event, they would have to be depended upon to help put the system into operation. Suppose, then, that the plan were adopted by the Federation, what provisions should it make to reduce theory to a practical form? Our ideas on this subject are best illustrated by a concrete example.

Let us assume that the State of Illinois were entitled to eight delegates. Within a reasonable time, say about two months before the date of the convention, the State Commissioner might do one of two things for the purpose of obtaining nominations, of which there should be about twice as many as there are delegates to be elected. He could write to each member of the F. A. M. in that State inviting him to make a certain number of nominations, from one up to sixteen, the sixteen having the highest number of votes to be declared the nominees for that State, or the eight having the highest number of votes its delegates, that is, elected directly, without nominations.

Another Suggestion.

We believe we have a better plan, however. Let the nominations be made by the affiliated clubs in the State, and have the State Commissioner complete the list of nominations, he himself being included among the nominees. The number of nominations each club could make would be in proportion to its number of F. A. M. members. To have the preliminary selections made through the co-operation of the State Commissioner and the clubs would be, we believe, vastly better than individual nominations, because in the latter case many of the nominees would be men who would *decline to qualify*. On the other hand, the State Commissioner and the clubs would be more likely to select men who, if elected delegates, would attend the convention and take active part in its deliberations. Of course, other nominating plans will suggest themselves to many who read this, and this publication invites such to put their views on paper and forward them to the editor, by whom they will be given publicity.

Electing Delegates.

The nominations having been made, the rest would be simple and follow as a matter of course. Each F. A. M. member in each State would be sent a list of nominations with instructions to vote for half of the nominees or any other men whom he might favor, the number of his choices not to exceed the quota of delegates to which his State was entitled. Of course, those receiving the highest number of votes would be given credentials to attend and vote in the National Assembly.

How Many Would Qualify?

This is about all there is to the problem. In fact, the plan of procedure, of which there are any number, is no problem at all. The only difficulty lies in the question whether the attendance of delegates would be *large enough* to make the delegate convention system a success. If the plan were put into effect and the attendance came up to expectations, then the new arrangement would prove vastly superior to the present system, for a number of reasons, among them the following:

The Entire Country Represented.

The convention would be *thoroughly representative* of the best and most advanced, also, no doubt, the most intelligent F. A. M. sentiment in all parts of the country. The convention would be more than merely a gathering of local Federationists.

"Local Cliques" Would Not Control.

The national assemblies would not be dominated by two or three men who, because they have more ideas or are better talkers than the others, generally control the entire situation. Instead, each community would send its foremost F. A. M. members, and the formation of little community cliques for railroading through their ideas, whether good, bad or indifferent, would be rendered practically impossible.

Exchange of Thought.

The sum total of the thought and action which would emanate from a delegate convention would be of a higher standard. The New Yorker would learn things from the Californian, and vice versa. Each delegate would return to his home community a wiser man in F. A. M. affairs. He would bring a message *to* the convention and take another *back with him*.

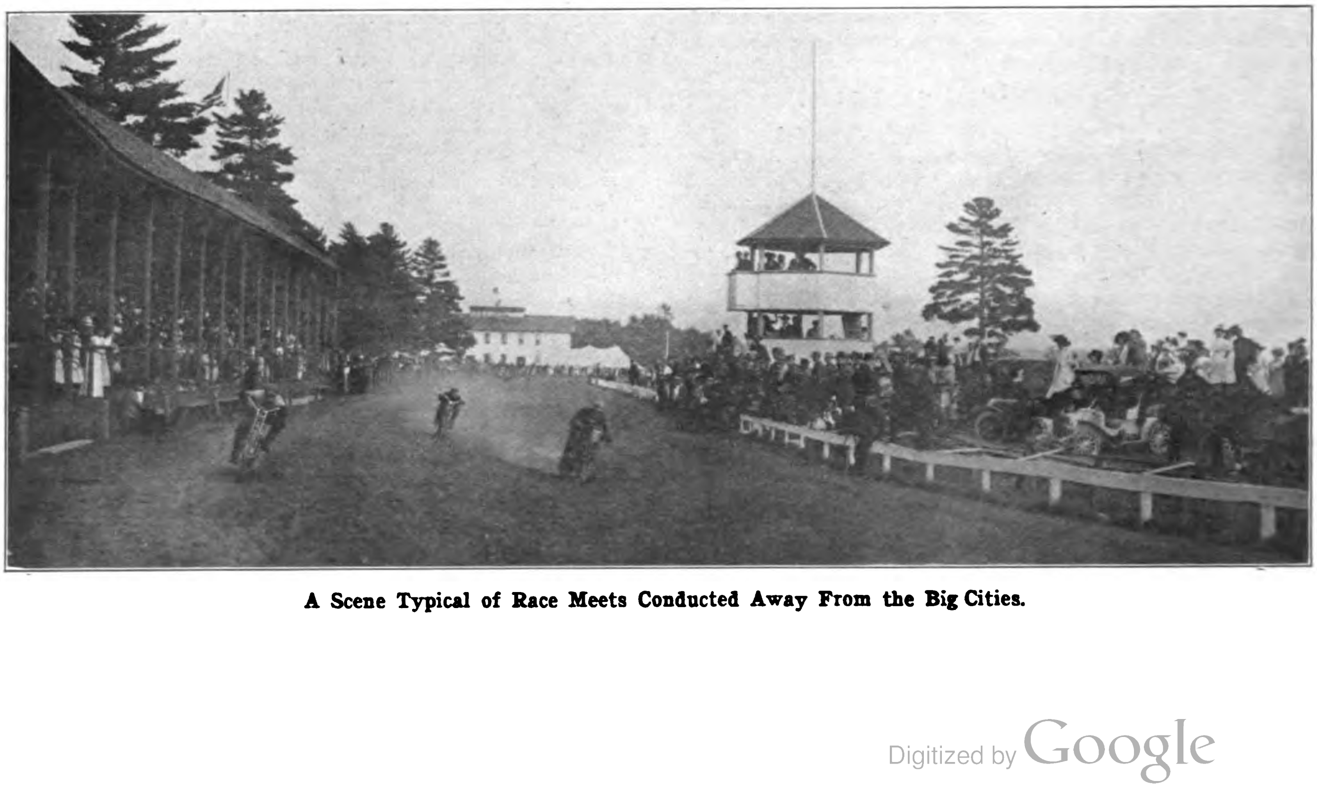
Greater Interest in the F. A. M.

Interest in the F. A. M. would be more general, more extensive and more logically distributed. The fact that every community where the F. A. M. was represented had a voice in its affairs would *stimulate local interest*, thus benefiting that community, as well as the F. A. M. and the entire sport.

The Heart of the Problem.

These are only a few of the good things that would grow out of the adoption of a delegate system of national assemblies, if—and we admit the "if" is a rather formidable one—the assemblies were *well attended*. In other words, here is the crux of the problem: *How large a proportion of the elected delegates would actually participate in the national assemblies?*

BEFORE assembling a dismounted engine, it will be found a good plan to rub flake graphite thoroughly into the surfaces of the pistons and cylinders. This will result in good compression and improved lubrication.



A Scene Typical of Race Meets Conducted Away From the Big Cities.

A GENUINE ENDURANCE TRIAL

Though Not So Called, Linden Club's Run Was a Hard Test for Both Riders and Their Machines.

ONE of the fixed contests of the sport is the Annual Spring 150-Mile Run of the Linden Motorcycle Club, of Brooklyn, N. Y., which although held rather early in the season for most motorcyclists, was well attended this year, taking into consideration the cold, damp, unfavorable weather which welcomed the 49 starters at 8 a. m., Sunday, April 17. A 40-mile-an-hour northeaster blew into the teeth of the riders on the longest leg of the course, causing much discomfort, which later on became almost torture, as the clouds condensed and shed their icy drops on the riders, most of whom were unprepared for such conditions.

As usual, "The Fast Bunch" hit it up to make a record ride, but wind and engine trouble put some of these out of running before the first checking station, Oyster Bay, was reached. Much interesting hill-climbing data could have been obtained on the steep winding ascent just beyond Oyster Bay, whose loose, sandy surface taxed engines and riders to their utmost. Some 5 and 7 h. twins failed altogether, while with but few exceptions singles were stalled one-half the way up. It was on this hill that a lightweight twin cylinder machine, which seems to be bounding into public favor, made a very creditable showing.

That Rain, and the Mud!

Just as the tail-enders reached Massapequa on the way out, the rain which had been threatening came down in earnest and did not cease for the balance of the day. The cold downpour sent some of the riders scattering for shelter, and newspaper chest protectors were improvised at every roadhouse to ward off the fierce gales which threatened to put those who continued into the physician's hands on the morrow. On through Patchogue to South Haven, the fifth and last checking station, the more daring riders continued, side slips, buckled frames, and punctures leaving many by the wayside, whose stiff and drenched anatomy needed considerable coaxing to make the most simple of repairs.

Cheered up with a warm dinner and some necessary "tea," the riders turned homeward along the Merrick Road, through Jamaica, ending at the starting point, Pflieger's Motorcycle Garage, 1604 Bushwick avenue, Brooklyn. Here the competitors were cheered as they arrived, resembling drowned rats. From 4.20 p. m. till 7 o'clock, the limit hour, twenty-nine survivors checked in, a surprisingly large number, considering the horrible and trying conditions. Those riders who did finish deserve congratulations on their pluck. The surviving motorcycles, many of which were in a dilapidated condition, did well in exploiting the general dependability of the motorcycle of today. It is seldom that any machine is called upon to go through six or eight hours of pouring rain and excessively muddy roads, and the percentage of perfect scores is a pleasing feature, which should receive due consideration from those doubting the reliability of present-day machines.

Some Interesting Statistics.

Sixteen out of the 29 survivors used belt drive, which transmission showed up to a better advantage than was expected under the conditions. There were twelve V belts, mostly of the rubber and canvas type, and four flat leather belts. Much chain trouble was experienced through snapping on account of the flying grit which worked considerable havoc with all moving parts. A surprisingly small amount of magneto trouble or short-circuits was noticed.

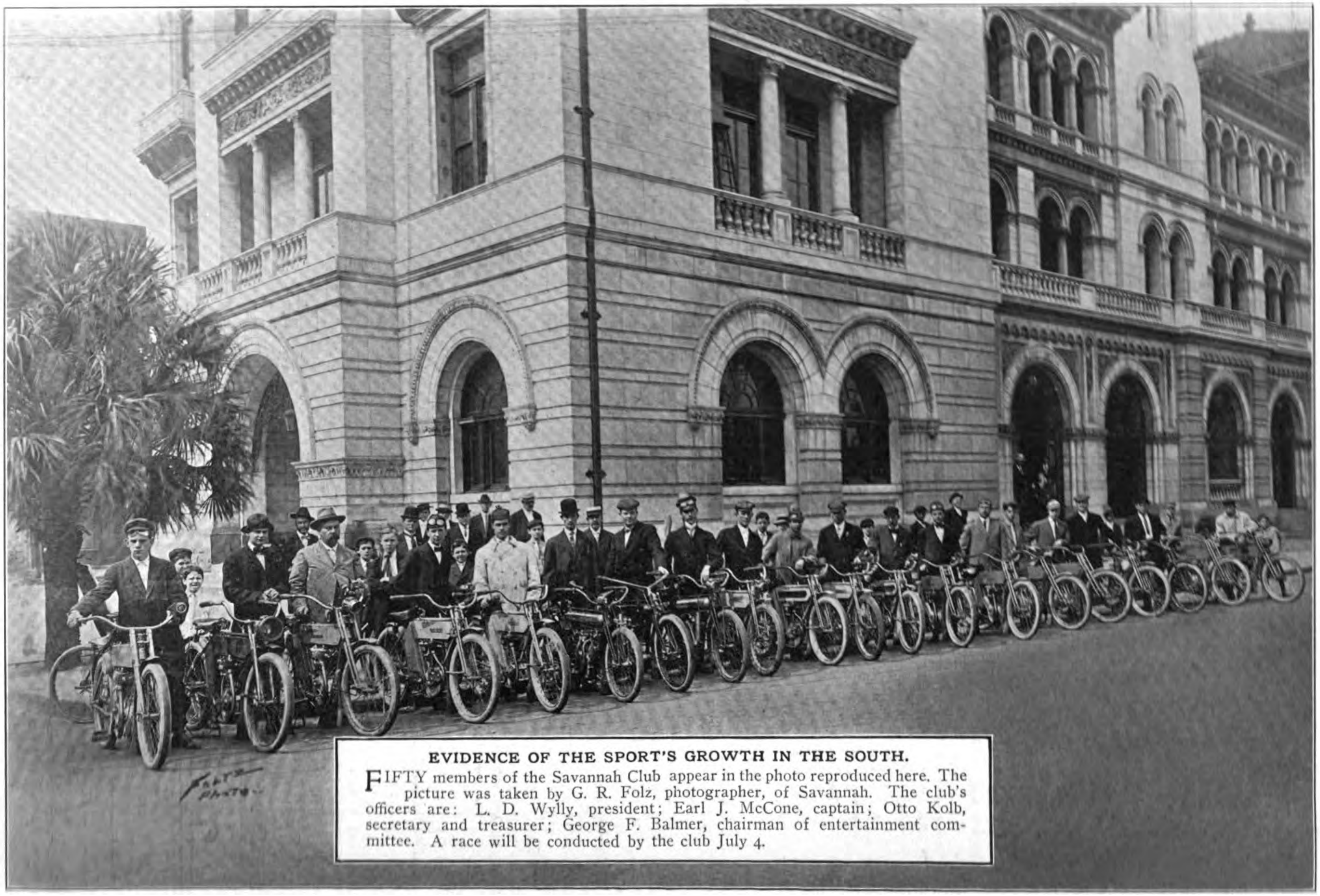
As might be expected, a few accidents occurred. Simpson, on a 4 N. S. U., in overtaking two Merkel riders, caused a general mix-up, which could not well be avoided. Just before coming into Amityville an exceptionally greasy spot put the two Merkel machines down in the mud and before the N. S. U. could be brought to a stop, the three machines and riders performed a neat and almost serious gymnastic stunt. Bent frames, ripped tires and scarred shins were the only casualties, however. Frank Hocksprung, checker at Oyster Bay, and also a competitor, was the only rider to receive serious injuries. The accident took place at Woodberry at three o'clock. Hocksprung was riding at 15 miles per hour when, as he was approaching the Woodberry Bend, a four corner turn, an automobile suddenly whizzed around the corner and before either driver or motorcyclist realized their positions the two machines crashed together, throwing the motorcyclist several feet in the air. He was picked up unconscious and rushed to Mineola, where he is lying at the Nassau Hospital with a broken leg and several lacerations and bruises. The auto was somewhat damaged and the occupants a bit shaken up. The following is a list of survivors, to whom gold medals will be awarded:

The Gold Medal Winners.

Name.	Club.		Machine.
E. C. Barnhart	Linden M. C.	4-horse	Excelsior
J. F. McLaughlin	N. Y. M. C.	7 “	Merkel
A. G. Chapple	“ “	7 “	“
Wm. G. Bendernagel	Unattached	5 “	Indian
A. J. Rochow	“	5 “	“
Chas. E. Fraser	“	5 “	“
Fred Voelker	N. Y. M. C.	6 “	N. S. U.
A. H. Bartsch	“ “	3 “	“
John Constant	Linden M. C.	2¼ “	Read.-St'd.
Horace Morgan	Unattached	3½ “	Indian
Clarence Morgan	Linden M. C.	5 “	“
Jos. Buckingham	Unattached	5 “	Har.-Dav.
A. C. Klages	L. I. M. C.	4 “	Excelsior
S. Simpson	Unattached	4 “	N. S. U.
W. Elmer Finley	Linden M. C.	3½ “	Merkel
Albert Kreuder	N. Y. M. C.	4 “	M. M.
A. B. Pollock	Linden M. C.	5 “	Indian
Edward Daley	“ “	6 “	Merkel
Madison G. Finley	“ “	6 “	N. S. U.
Jacob Friederichs	“ “	6 “	Merkel
William Berman	“ “	5 “	Indian
Harry Mapp	N. Y. M. C.	5 “	“
A. Moore	Linden M. C.	3½ “	Merkel
A. H. Hamblen	Unattached	5 “	Indian
B. J. Hourlander, Jr.	“	3½ “	Excelsior
L. H. Guterman	Harlem M. C.	5 “	Indian
W. P. Hubschmitt	“ “	5 “	“
David R. Thompson	Unattached	5 “	“
Grover Cleveland Davis	Curtiss M. C.	6 “	Curtiss

Why Some Fell by the Wayside.

Some of the belated motorcyclists reported their non-appearance to be due to the following causes: Wehman, out at Oyster Bay, valve trouble; Decker, out at Jamaica, ignition trouble; Boscher Bros., out at Massapequa, tire trouble and rain; Morris, out at Massapequa, too much exposure; Miller, out at Cold Spring, too much exposure; Fletcher, out at Bay Shore, skidded into ditch; Wennstroem, out at Babylon, engine seized; Wellbrock, out at Lynbrook, exposure; Davis, out at Jamaica, ignition trouble; Chase, out at Jamaica, ignition trouble; Fawcett, out at Bay Shore, exposure.



EVIDENCE OF THE SPORT'S GROWTH IN THE SOUTH.

FIFTY members of the Savannah Club appear in the photo reproduced here. The picture was taken by G. R. Folz, photographer, of Savannah. The club's officers are: L. D. Wylly, president; Earl J. McCone, captain; Otto Kolb, secretary and treasurer; George F. Balmer, chairman of entertainment committee. A race will be conducted by the club July 4.

A LITTLE TRIP IN IOWA

BY CHARLES D. CURTIS

About the middle of last August I had occasion to go from Big Rock, Iowa, to Cincinnati, in the same State. Big Rock is in Scott County, and although a small village, is known far and near as the place of rendezvous of John Brown and some of his men when he was planning his famous Civil War raid. My trip by the route I had planned covered about 225 miles, a fair day's run, but as I was in no hurry I decided to take two days for the trip. The Cincinnati of which I write is in southern Iowa, close to the Missouri line.

Mounted upon my 3½ Curtiss, I left Big Rock about 5:30 in the morning, with a clear sky and fairly good roads. As there were no teams on the road at this early hour, I sped along quite rapidly with nothing to do but keep in the road and enjoy the beautiful scenery that stretched out before me and which constantly changed as the morning sun added color to it, both literally and figuratively. It was while enjoying myself thus to the fullest extent that I narrowly averted an accident which would probably have resulted in the end of my trip right there. I was speeding along at a lively clip, and as I passed a farm house the proprietor stood in the yard, milk-pail in hand, watching me, when suddenly a drove of good-sized pigs—there must have been at least twenty—deciding that my machine was some kind of a monster bent on their destruction, and the sooner they could reach the other side of the road, where stood the barn, the better it would be for them, rushed pell mell for said barn. I turned off the grips, put on the brake hard and just missed running right amongst them. After this I kept my eye open for pigs.

It was about eight o'clock this same morning that I encountered my first real sand. I had practiced all summer in sand, and thought I could master it pretty well, but it was never more than two or three inches deep and simply required a firmer hold on the handles. But this sand was different. I had just crossed a small bridge from good roads and came into it suddenly. It was so loose that the wheels sank over the rims without my weight upon them, and I sank into it nearly to my ankles when trying to push the machine. I had not gone far when I met a young man on horseback, and the look of fiendish satisfaction on his face made me feel like saying something real mean about him and the country in general. Instead, I simply inquired the distance to the next town (Cedar Bluffs). "A mile and a half," said he, "and a h—— of a lot of sand." I inquired whether I could not turn back and go by some other route, but he said he thought I would find as much sand one way as another, so I decided to plug through, and let me say that that was the toughest proposition I have ever been up against. It took me nearly two hours to make that mile and a half, and three times during the distance I narrowly escaped wrecking my machine, each time by trying to ride in the weeds beside the road, where the sand was hard enough to hold us up. Twice I ran into piles of small poles where trees had been cut and the smaller limbs left there, and once into a ditch a yard deep, all these obstacles being completely hidden by the tall weeds. On one of these poles I bent the rear belt rim so badly that it would not revolve. But I remedied that and abandoned further attempts to ride where I could not see the track. By alternately pushing and resting I finally got through, and I will gladly say that I encountered no more sand on this trip, although I once rode many miles out of my way to escape a similar stretch of it. After this experience I was tired, completely exhausted; but after a brief rest I was again on my way and without further mishap or adventure save a twenty-mile race with a thunder storm, which the thunder storm won, I arrived at Fairfield, a beautiful little city of 5,000, at 5 p. m., a hundred and thirty-five miles from my starting point.

I decided to ride another hour, and when about a mile from town, while passing a team I found that the valve lift would not respond to the control. I examined it hastily and found that the cable was broken somewhere within the handle-bar. After trying every stunt that I could think of and everything I had read in Motorcycle Illustrated covering such emergencies, even to lifting the valve with a fish line, I found that I could accomplish nothing. I had one thing to feel thankful for, however, and that was that I was only a mile from town, instead of ten or fifteen.

It was eleven o'clock the next day before I could get the cable repaired and leave Fairfield, but I felt confident that I could easily make the remaining seventy-five miles that afternoon. About the middle of the afternoon I rode into a section which was nicknamed "The Devil's Washboard," and all the rest of the afternoon I was either riding up a hill or down one. Oh, ye motorcyclists who long for the hill climb! Come out to Iowa and I will escort you over to The Devil's Washboard, and I will prove to you also that you do not need to ride on a ship to get seasickness. But I had an enjoyable trip, just enough obstacles to develop sterner qualities, to test your patience, and find out what kind of stuff there is in you.

Professor and Mrs. Curtis.

I had many enjoyable chats with farmers and others on the road. I, knowing that I was riding through a section where motorcycles scarcely if ever pass, dismounted every time I met a team. In every case except one, to let me know they appreciated this, they stopped and talked, often getting off their vehicles and examining the machine critically, one man even asking me to ride up and down the road a few times till his horses got used to it, a request which I granted.

I arrived home safely at six p. m. During my entire trip, if my engine missed a single explosion I never knew it. I had no tire trouble whatever; never even had the pump out of the frame; no machine trouble except that little inaccessible, hermetically sealed cable.

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AMATEUR RECORDS.

Distance.	Holder.	Where Made.	Date.	Time.
†1	C. Spencer	Springfield	Oct. 23, '09	0:28⅖
†1*	C. Gustafson	Springfield	Oct. 23, '09	0:39
†1*	C. Spencer	Springfield	Oct. 23, '09	0:55⅘
1	Fred Huyck	Springfield	July 31, '09	0:42⅗
2	Fred Huyck	Springfield	July 31, '09	1:27⅖
3	Fred Huyck	Springfield	July 31, '09	2:12
4	Fred Huyck	Springfield	July 31, '09	2:55⅘
5	Fred Huyck	Springfield	July 31, '09	3:40⅕
6	Fred Huyck	Springfield	July 31, '09	4:38⅗
7	Fred Huyck	Springfield	July 31, '09	5:24⅖
8	Fred Huyck	Springfield	July 31, '09	6:09⅗
9	Fred Huyck	Springfield	July 31, '09	6:55⅗
10	Fred Huyck	Springfield	Sept. 6, '09	7:42⅗
11	Fred Huyck	Springfield	Sept. 6, '09	8:29⅗
12	Fred Huyck	Springfield	Sept. 6, '09	9:15⅖
13	Fred Huyck	Springfield	Sept. 6, '09	10:02⅖
14	Fred Huyck	Springfield	Sept. 6, '09	10:50⅕
15	Fred Huyck	Springfield	Sept. 6, '09	11:36⅖
16	Fred Huyck	Springfield	Sept. 6, '09	12:23⅗
17	Fred Huyck	Springfield	Sept. 6, '09	13:12⅖
18	Fred Huyck	Springfield	Sept. 6, '09	13:58⅖
19	Fred Huyck	Springfield	Sept. 6, '09	14:44⅗
20	Fred Huyck	Springfield	Sept. 6, '09	15:31⅕
21	Fred Huyck	Springfield	Sept. 6, '09	16:17⅕
22	Fred Huyck	Springfield	Sept. 6, '09	17:04⅗
23	Fred Huyck	Springfield	Sept. 6, '09	19:03
24	Fred Huyck	Springfield	Sept. 6, '09	19:53
25	Fred Huyck	Springfield	Sept. 6, '09	20:54
30	Fred Huyck	Springfield	Sept. 6, '09	25:14⅖
35	Fred Huyck	Springfield	Sept. 6, '09	29:20⅖
40	Fred Huyck	Springfield	Sept. 6, '09	33:22⅗
45	Fred Huyck	Springfield	Sept. 6, '09	37:39
50	Fred Huyck	Springfield	Sept. 6, '09	41:49⅗
55	Fred Huyck	Springfield	Sept. 6, '09	46:10⅕
60	Fred Huyck	Springfield	Sept. 6, '09	50:24⅗
65	Fred Huyck	Springfield	Sept. 6, '09	54:32⅕
70	Fred Huyck	Springfield	Sept. 6, '09	58:48⅖
75	Robt. Stubbs	Birmingham	Nov. 24, '08	1:20:00⅕
80	Robt. Stubbs	Birmingham	Nov. 24, '08	1:25:19⅖
85	Robt. Stubbs	Birmingham	Nov. 24, '08	1:30:37
90	Robt. Stubbs	Birmingham	Nov. 24, '08	1:36:03
95	Robt. Stubbs	Birmingham	Nov. 24, '09	1:42:03⅕
100	M. J. Graves	Los Angeles	July 18, '09	1:27:49
200	C. Spencer	Springfield	Oct. 1, '09	3:55:20
300	C. Gustafson	Springfield	Oct. 1, '09	5:48:55
400	C. Gustafson	Springfield	Oct. 1, '09	8:12:36
500	C. Spencer	Springfield	Oct. 2, '09	10:22:36
600	C. Spencer	Springfield	Oct. 2, '09	13:15:16
700	C. Spencer	Springfield	Oct. 2, '09	15:25:26
800	C. Spencer	Springfield	Oct. 2, '09	17:37:31
900	C. Spencer	Springfield	Oct. 2, '09	19:46:00
1,000	C. Spencer	Springfield	Oct. 2, '09	22:20:59

*Made in standing start. (All others are timed from flying start.) †Kilo.

AMATEUR HOUR RECORDS.

Time.	Holder.	Where Made.	Date.	Mi.	Yds.
1	Fred Huyck	Springfield	Sept. 6, '09	71	620
2	M. J. Graves	Los Angeles	July 18, '09	134	880
3	C. Spencer	Springfield	Oct. 1, '09	145	587
4	C. Spencer	Springfield	Oct. 1, '09	204	587
5	C. Gustafson	Springfield	Oct. 1, '09	246	1,174
6	C. Gustafson	Springfield	Oct. 1, '09	300	1,174
7	C. Gustafson	Springfield	Oct. 1, '09	333	1,174
8	C. Gustafson	Springfield	Oct. 2, '09	388	1,174
9	C. Gustafson	Springfield	Oct. 2, '09	441	...
10	C. Spencer	Springfield	Oct. 2, '09	482	...
11	C. Spencer	Springfield	Oct. 2, '09	512	...
12	C. Spencer	Springfield	Oct. 2, '09	559	587
13	C. Spencer	Springfield	Oct. 2, '09	585	...
14	C. Spencer	Springfield	Oct. 2, '09	641	587
15	C. Spencer	Springfield	Oct. 2, '09	677	587
16	C. Spencer	Springfield	Oct. 2, '09	730	...
17	C. Spencer	Springfield	Oct. 2, '09	776	587
18	C. Spencer	Springfield	Oct. 2, '09	812	587
19	C. Spencer	Springfield	Oct. 2, '09	862	587
20	C. Spencer	Springfield	Oct. 2, '09	911	...
21	C. Spencer	Springfield	Oct. 2, '09	945	587
22	C. Spencer	Springfield	Oct. 2, '09	986	1,174
23	C. Spencer	Springfield	Oct. 2, '09	1,035	1,174
24	C. Spencer	Springfield	Oct. 2, '09	1,093	1,151

PROFESSIONAL RECORDS.

Distance.	Holder.	Where Made.	Date.	Time.
1	H. Cissac	England	July 27, '05	0:25⅗
1*	H. Cissac	England	July 27, '05	0:35
1*	J. Derosier	Clifton, N. J.	July 26, '08	1:02
1	J. Derosier	Springfield	July 31, '09	0:43⅕
2	J. Derosier	Springfield	Sept. 18, '09	1:32
3	J. Derosier	Springfield	Sept. 18, '09	2:20
4	J. Derosier	Springfield	Sept. 18, '09	3:07⅗
5	J. Derosier	Springfield	Sept. 18, '09	3:55⅗
6	J. Derosier	Springfield	Sept. 18, '09	4:45
7	J. Derosier	Springfield	July 31, '09	5:34
8	J. Derosier	Springfield	Sept. 18, '09	6:20⅗
9	J. Derosier	Springfield	Sept. 18, '09	7:08⅗
10	J. Derosier	Springfield	Sept. 18, '09	7:56⅗
11	J. Derosier	Springfield	Sept. 18, '09	8:45
12	J. Derosier	Springfield	Sept. 18, '09	9:33⅗
13	J. Derosier	Springfield	Sept. 18, '09	10:21⅗
14	J. Derosier	Springfield	Sept. 18, '09	11:11⅕
15	J. Derosier	Springfield	Sept. 18, '09	12:00
16	J. Derosier	Springfield	Sept. 18, '09	12:47⅗
17	F. S. Whittler	Los Angeles	April 18, '10	13:40
18	F. S. Whittler	Los Angeles	April 18, '10	14:28
19	F. S. Whittler	Los Angeles	April 18, '10	15:16⅕
20	F. S. Whittler	Los Angeles	April 18, '10	16:05
21	F. S. Whittler	Los Angeles	April 18, '10	16:53⅕
22	F. S. Whittler	Los Angeles	April 18, '10	17:41
23	F. S. Whittler	Los Angeles	April 18, '10	18:29⅗
24	F. S. Whittler	Los Angeles	April 18, '10	19:17⅕
25	F. S. Whittler	Los Angeles	April 18, '10	20:04⅗
30	F. S. Whittler	Los Angeles	April 18, '10	24:00⅘
35	F. S. Whittler	Los Angeles	April 18, '10	28:03
40	F. S. Whittler	Los Angeles	April 18, '10	32:05
45	F. S. Whittler	Los Angeles	April 18, '10	36:08
50	F. S. Whittler	Los Angeles	April 18, '10	40:13
55	J. Derosier	Los Angeles	April 18, '09	53:14
60	J. Derosier	Los Angeles	April 18, '09	57:51
65	J. Derosier	Los Angeles	April 18, '09	1:04:27⅗
70	J. Derosier	Los Angeles	April 18, '09	1:09:07⅕
75	J. Derosier	Los Angeles	April 18, '09	1:13:46
80	J. Derosier	Los Angeles	April 18, '09	1:18:34⅕
85	J. Derosier	Los Angeles	April 18, '09	1:23:25⅗
90	J. Derosier	Los Angeles	April 18, '09	1:28:18⅕
95	J. Derosier	Los Angeles	April 18, '09	1:33:12⅗
100	J. Derosier	Los Angeles	April 18, '09	1:37:59⅗

Distance.	Holder.	Where Made.	Date.	Time.
200	H. Martin....	England	Feb. 15, '09	4:05:54⅖
300	H. A. Collier..	England	May 5, '09	6:06:28
400	H. A. Collier..	England	May 5, '09	9:06:25⅘

*Standing start.

PROFESSIONAL HOUR RECORDS.

Time.	Holder.	Where Made	Date.	Mi.	Yds.
1	C. R. Collier..	England	Oct. 8, '08	68	1,380
2	H. V. Colver..	England	Oct. 9, '09	118	719
3	H. V. Martin..	England	Nov. 22, '09	165	936
4	H. V. Martin..	England	Feb. 15, '09	194	1,320
5	H. A. Collier..	England	May 5, '09	245	640
6	H. A. Collier..	England	May 5, '09	294	800
7	H. A. Collier..	England	May 5, '09	326	640
8	H. A. Collier..	England	May 5, '09	364	1,480
9	H. A. Collier..	England	May 5, '09	396	80
10	H. A. Collier..	England	May 5, '09	411	...
11	H. A. Collier..	England	May 5, '09	445	1,462
12	H. A. Collier..	England	May 5, '09	471	784

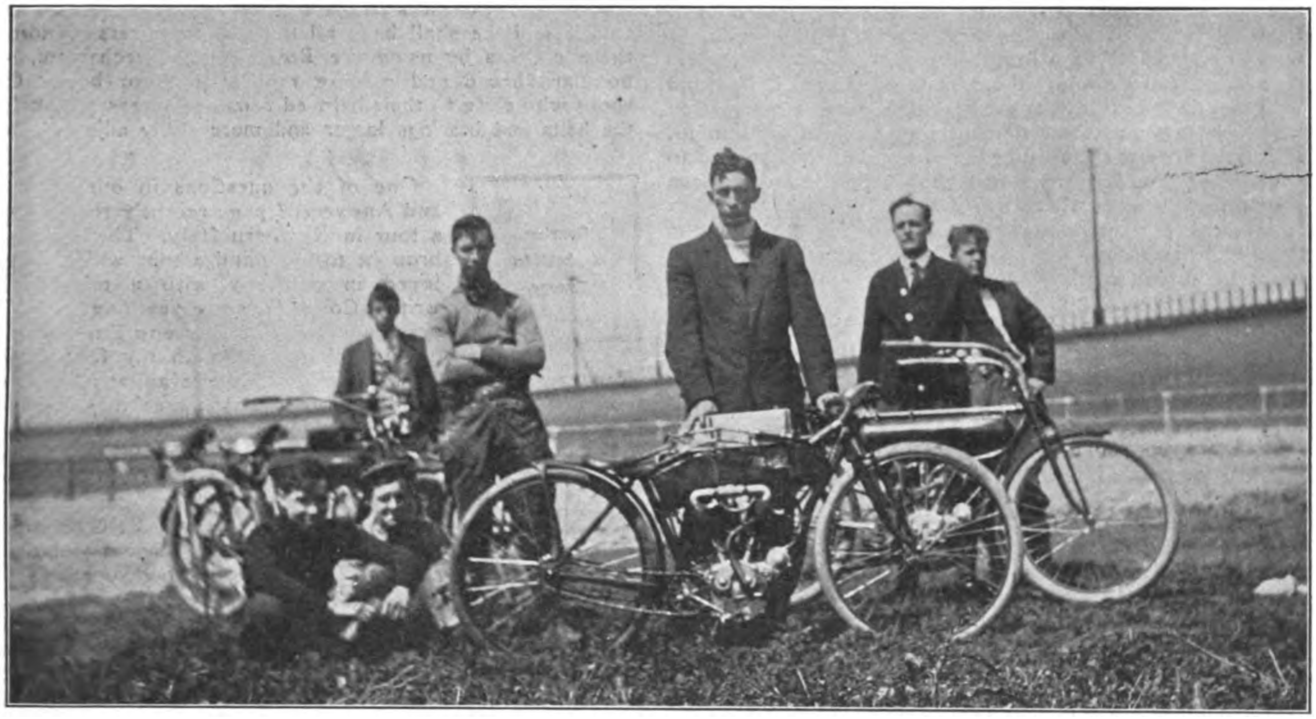
Time.	Holder.	Where Made.	Date.	Mi.	Yds.
13	H. A. Collier..	England	May 6, '09	506	1,260
14	H. A. Collier..	England	May 6, '09	508	...
15	H. A. Collier..	England	May 6, '09	522	1,590
16	H. A. Collier..	England	May 6, '09	566	...
17	H. A. Collier..	England	May 6, '09	599	1,700
18	H. A. Collier..	England	May 6, '09	611	330
19	H. A. Collier..	England	May 6, '09	648	586
20	H. A. Collier..	England	May 6, '09	680	...
21	H. A. Collier..	England	May 6, '09	690	586
22	H. A. Collier..	England	May 6, '09	725	1,390
23	H. A. Collier..	England	May 6, '09	730	940
24	H. A. Collier .	England	May 6, '09	775	1,340

STRAIGHTAWAY RECORDS—AMATEUR.

Distance.	Holder.	Where Made.	Date.	Time.
1†	W. Goerke...	Daytonna	Mch. 25, '09	0:27⅘
5*	W. Goerke...	Daytonna	Mch. 24, '09	3:30⅕

†Kilo. *Miles.

WHITTLER ESTABLISHES LONG STRING OF NEW RECORDS.



Whittler, in center; Mitchell, C. L. Smith and Other Merkel Riders in the Background.

LOS ANGELES, CAL.—A fortnight ago on the mile board track near Playa Del Rey, the Salt Lake professional rider, F. E. Whittler, broke all world's records against time from seventeen to fifty miles, using a 7 h. Merkel racer. The record trial was under special sanction of the F. A. M and with careful observation of all Federation rules and regulations, and after the event was concluded the timers, judges and official referee made sworn statements to the time recorded. The watches were all tested the day before by the Whitley Jewelry Company of Los Angeles, which has made a specialty of supplying timing watches for all important motoring events for some time. Two of the timers, Louis C. Roessler and W. L. Elbe, are watch experts from the Whitley establishment, while the third timer was H. D. Johnson, a prominent member of the Los Angeles Motorcycle Club, who has often officiated at the motorcycle races in various capacities. The judges were Patrick J. Bodkin, an amateur bicycle rider; John Johnson of the Motorcycle Club, and Henry L. Beebe, who takes great interest in motorcycle racing. Charles Fuller Gates, editor of *Pacific Motoring*, and the official referee of the F. A. M., was in charge for Chairman Thornley of the National Competition Committee. Here are the old and the new figures:

Old records.	Whittler. records.	Old records.	Whittler. records.
1— 0:43⅕	1— 0:48	16—12:47⅗	16—12:50
2— 1:32	2— 1:36⅖	17—13:42	17—13:40
3— 2:20	3— 2:25⅖	18—14:30⅘	18—14:28
4— 3:07⅖	4— 3:13	19—15:19⅘	19—15:16⅕
5— 3:55⅗	5— 4:00⅖	20—16:08⅗	20—16:05
6— 4:45	6— 4:48⅖	21—16:57⅕	21—16:53⅕
7— 5:34	7— 5:36⅕	22—17:45⅗	22—17:41
8— 6:20⅖	8— 6:25	23—18:34⅖	23—18:29⅗
9— 7:08⅗	9— 7:13⅘	24—19:24⅖	24—19:17⅕
10— 7:56⅗	10— 8:01⅕	25—20:13⅖	25—20:04⅖
11— 8:45	11— 8:49⅗	30—29:41	30—24:00⅘
12— 9:33⅖	12— 9:38	35—35:23⅖	35—28:03
13—10:21⅗	13—10:26	40—38:55⅘	40—32:05
14—11:11⅕	14—11:13⅖	45—43:29	45—36:08
15—12:00	15—12:01⅖	50—48:21	50—40:13

TIPS AND TOPICS

By THE VETERAN.

IN my recent maunderings I paid a high compliment to the busy, flourishing condition of the motorcycle trade in the State of Texas. There is only one notable absentee from the different makes represented in that State—why, I cannot tell, as I am not versed in motorcycle trade mysteries. I had occasion to visit Waco on some recent wanderings afield and found that city full of enthusiasm for the noble sport. They have a mud season in Waco and the mud of the city is famed unto the far corners of the earth. I wonder what the Waco brethren do in this sad time; perhaps they read through all the back numbers of Tips and Topics—'tis well, for 'twere a right goodly occupation withal—at any rate, better than being stuck in the gumbo! I have no love for the said gumbo myself. I have had to scrape it out of my eyes and ears before now and can vouch for the fact that it sticks like a porous plaster. It is the lovely damp clay that I love best, though, the kind that bungs up the whole happy home between the tire and mudguards and gets one in a heated condition beneath one's glossy collar, as it were. A few sad miles under these conditions would metamorphose (two-stroke word) one's ordinary remarks into Kiplingesque, as there is no cure for the evil but to get off from time to time, scrape away the real estate and remount with a young quarter-section hanging to each boot. You thereupon try to get the mud off your boots as you ride; it won't do anything except spread out like a snowshoe. Then you kick your foot in the air and a large blob suddenly dislodges and hits you in the mouth, while you finish up with a glorious sideslip.

The Value of Perfect Control.

Whenever a general overhaul is given to any motorcycle two points which are quite often overlooked should be attended to. First of all the control levers are subjected to a great deal of vibration in riding. This means, as they are somewhat frail in construction, that in all probability lost motion has set up here and there owing to looseness of the moving parts. Often the lack of a single adjustment such as this will cause the rider to lose hours of valuable time in tinkering with the carbureter to find out the reason for the lack of responsiveness to the throttle opening, for instance. All sorts of adjustments will be tried; perhaps the carbureter will be dissected and dirt or stoppage looked for in vain, where in reality lost motion in the throttle operating mechanism will be at the bottom of the whole affair. Not only does this lost motion destroy the confidence of the rider in his machine, but the tendency is to an ever-increasing amount of wear in every joint; in fact, this might lead to a serious accident in the end. Therefore, from time to time lost motion should be looked for and adjustments should be made. Next in importance comes the position of both throttle and spark advance levers when adjusted. The same thing applies to revolving grips in grip control. Their position should be so regulated that the full extremes of motion in both directions may be secured without turning the levers or twisting grips against either of their stops. This is a very important point, as otherwise, in the one case, it may be impossible to work the engine up to its full speed, while in the other, one cannot completely close the throttle. Some arrangements of grip control which I have examined at the Shows seem to give a multiplicity of moving parts and angular bends. These in particular are likely to produce "lost motion" troubles under ordinary riding conditions; much as I favor the present-day grip control, I fear that it is a great sinner in this respect. In the old style of control, the connecting bars were more or less direct; nowadays we take them round several corners before they reach the required spot. In the end we shall have all the manufacturers avoiding these corners by using the Bowden wire mechanism, so popular abroad and gaining rapidly in favor here. Or those who cling to their beloved rods and levers will make the bolts and bearings larger and more easily adjusted.

Touring Awheel In Europe.

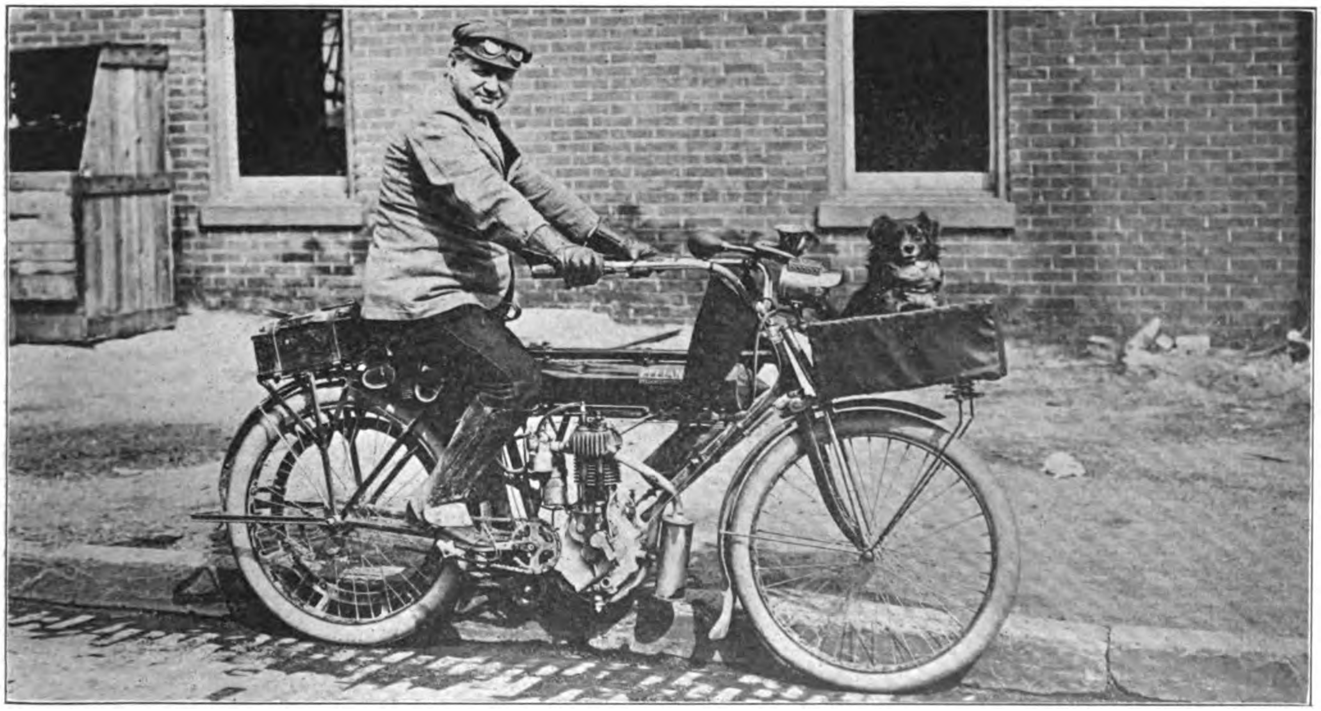
One of the questions in our "Asked and Answered" page recently referred to a tour in Northern Italy. The question brought to my mind a tour which I enjoyed in company with a man from British Columbia some years ago. Business happened to take me to Europe, and having "chummed" with my future fellow tourist on the way across, I made an appointment some weeks later and we both bought machines for the tour. I had unfortunately only three weeks at my disposal, but we penetrated into Northern Italy, covered much of Switzerland and part of France. I had covered this ground before by motorcycle and car, coming into Italy over the Saint Bernard pass, also over Mont Cenis from France, and on this last occasion from Switzerland over the Simplon pass. There is another road over Mont Genèvre, with a few choice 17% grades. Unless one has a two-speeder this road, with its hairpin bends, should be avoided. Truly, the old world is a beautiful and interesting touring ground and an inexpensive one at that, if one studies the bargaining methods of the natives. This brings me to one point which I have noticed in rambles abroad, and at home, "for the matter of that." Use an automobile, even if it be a one-lunger, and you are considered fruit ripe for picking—and are picked clean. Use a motorcycle and a nimble wit and you can tour in Europe at less than $5 a day—if you studiously avoid stop-overs in touring centers. I can write from my own experience and from that of personal friends that this can be done easily, particularly in France. Touring is a habit which, when once acquired, sticks to one through life. I have toured in nearly every State in the Union, in Canada and abroad, and am now even thinking seriously of tackling Mexico. As long as one carries every likely or unlikely spare part, in some districts spare cans of lubricating oil and gasoline and a waterproof outfit—one can start for any point with a reasonable expectation of getting there, particularly on an up-to-date machine. I once toured on a Werner front drive 1½-h.—this was in 1899—and actually covered over a thousand miles of give and take roads without any insurmountable obstacles. One had to be independent in those days, as the rider of a motorcycle usually knew more of his mount than the average repair man. How much better off are we now, as the motorcycle of the present day is built to give satisfaction and gives it every time, as long as the original selection has been wisely made. This is an all important point, as when buying one must consider beforehand the exact use a machine will be put to. For instance, one would not buy a lightweight for a tour in the mountains or a high-geared "speed" twin-cylinder for use continuously in city traffic, and so on.

To Economize Without Loss of Power.

I have been recently testing a tip which originated from abroad. This is that a considerable gain in consumption without any corresponding loss in power may be effected by inserting a fine wire gauze screen over the carbureter jet. The idea is that if one causes the jet of gasoline to impinge on a fine mesh gauze the atomizing effect of the gauze gives a more evenly distributed vapor and brings into play some little part of the effect of the old-time surface carbureter without any of its drawbacks. I tried this notion on a 3½-h. machine with a simple type of carbureter of the spray variety, having a single jet enclosed in a plain mixing chamber with a rotary sleeve throttle. Three layers of gauze were used, fitted between rings, one of 80, one of 100 and one of 120 mesh. These were inserted in the chamber just over the jet and held in place. Purposely, for the sake of the experiment, no other alterations were made to the machine. The machine was taken out on the road and no diminution of power was noticeable in any way. The actual gain in lower consumption, after repeated trials, was shown to be 19 miles per gallon of gasoline. This indicates that there must either be something worth having in this tip or that we are still "groping in the dark" as to carbureter construction. I think that in the end the latter statement will be proven to be correct. As I have said before, there is no earthly reason why we should all blindly follow the creed of float-feed and jet design—still we do.

Autos and Their Many "Voices."

It is getting about time that the approach of an automobile should be heralded with some kind of "standardized" warning sound. Nowadays, it is getting the fashion for motor-car owners to procure every variety of ear-splitting instrument. First of all, we have the electrical variety, which makes a noise like a successful attempt at being sick. Then there is the wailing siren, which sounds like a lost soul with its tail caught in the crack of a door. Those who were at the Atlanta Show doubtlessly remember the constant and irritating performance of a salesman demonstrating the "charms" of a so-called musical bugle horn. It is the unfortunate part of this craze that the noises are so varied both in tone and strength that, when an automobile is coming up behind, one cannot tell whether it is bang on top of one or a hundred yards or more away. One cannot object to the majestic organ-note of some exhaust "chimes," originally introduced to the public some years ago as the Gabriel horn. This has about the same strength as a deep toned motor horn, with the additional advantage of a prolonged musical note. It is the man who carries an exhaust whistle like unto a drunken cuckoo, magnified to a hundred horse power, who causes the trouble, or the electric horn fiends who play at "fire department" when coming up behind. I am not nervous by nature, but to have one of these contraptions blown off behind one suddenly is enough to make a hardened old road rider wabble. I always make a point of considering the motorcyclist when I am driving an automobile, and my only wish is that other auto drivers would regard the humble motorcyclist as something other than a species of road lice. Generally speaking, the man with a shrieking siren is what the British aptly term a "road hog," and when I am on the road and hear their dulcet warnings, I generally drive on the extreme inside (as the Irish would say) of the road and give the "tootler" plenty of room, as ten chances to one he is a novice at driving.



AN enterprising dealer and enthusiast is E. J. Hock, of Shamokin, Pa. Hock has developed two particular likings, for his Reliance machine and his dog Teddy, respectively. The illustration shows how he manages to enjoy the companionship of both his motorcycle and his handsome canine "pal."

Frank Hart, Winner of Three Events at Recent Plainfield Races.

CONDITIONS POOR AND TIMES SLOW AT THE PLAINFIELD RACES

PLAINFIELD'S first meet at the Driving Park on Saturday afternoon attracted about 700 people despite the frigid weather. The honors of the day went to Frank Hart, of New York, and Harry Klebes, of Philadelphia. Hart was winner in three events and Klebes in one. The latter was scratch man in all of the events he appeared. A high wind which swept down the home stretch handicapped the riders and clouds of dust from the wind made it unpleasant for the spectators in the grand stand and field. The meet fell short of being the artistic success from a racing standpoint as intended by the management, owing to the non-appearance of a number of star riders in and about New York City. The management placed the blame on the newly organized Metropolitan Association. That's just where the responsibility belongs, very much to the credit of the Metropolitan Association.

However this may be, the fact remains that the promoters of the meet at the very last moment met the terms of the executive board of the Metropolitan Association. In other words, peace has been practically established and future Plainfield racing will be conducted with the approval and the assistance of the association. The promoters were not entirely in the wrong. They claimed they had never been notified officially, in fact were not aware that it was the purpose of the association to govern racing within a radius of 50 miles from the New York City Hall. Assurances have been practically given that these promoters, at least, believe that it will be decidedly to their advantage to "stand in" with the Metropolitan Association. The latter is simply interested in placing the sport not only upon a higher and more popular basis, but, for that matter, also a more profitable plane. Promoters who attempt to "buck" the organization will be likely to learn a rather bitter lesson, not because the association is in business to teach lessons to "insurgents," but simply because the best riders in this district appreciate that the Metropolitan Association is organized for their good, and on this account they are determined to remain loyal to it.

Hart, the star of the meet, finished first in the five and ten-mile handicaps and in the two-mile novelty race. Victory in the novelty contest came easy, but the New Yorker was compelled to hustle in the five and ten-mile events. Hart won the ten-mile owing to an accident to Klebes' machine which resulted in the rider being thrown to the ground. The summaries:

Two-mile novice race, limit 30:50 cubic inches—Won by Alex Reagan, New York City, 4 Reading-Standard; A. D. Honeyman, Plainfield, 4 Reading-Standard, second; E. R. Honeyman, Plainfield, 3 Reading-Standard, third; time, 3:34⅖.

Three-mile scratch, limit 30:50 cubic inches, Harry Klebes, Philadelphia, 4 Reading-Standard, first; William James, N. J. M. C., Newark, 3½ Indian, second; Frank Hart, N. Y. M. C., 4 Reading-Standard, third; time, 4.46⅕.

Five-mile handicap, limit 50 cubic inches—Won by Frank Hart, New York, 4 Reading-Standard; George Reichey, N. J. M. C., Newark, second; Harry Klebes, Philadelphia, third; time 6:38⅕.

Two-mile novelty race, limit 50 cubic inches—Won by Frank Hart, New York, 4 Reading-Standard; George Reichey, N. J. M. C., Newark, 5 Indian, second; Edward Swain, New York, 4 Reading-Standard, third; time, 3:20⅗.

Five-mile handicap, limit 30:50 cubic inches—Won by E. R. Honeyman, Plainfield, 3 Reading-Standard; A. D. Honeyman, Plainfield, 4 Reading-Standard, second; time, 9:53.

Ten-mile handicap, limit 50 cubic inches—Won by Frank Hart, New York, 4 Reading-Standard; Harry Klebes, Philadelphia, 4 Reading-Standard, second; William Stuebner, New York, 6 Reading-Standard, third; time, 17:09.

FOR USERS OF BATTERIES AND COILS

THE essential parts in the ignition apparatus of a gasoline motor having battery ignition are:

(1) Spark coil; (2) timer; (3) spark plug; (4) battery.

These parts are often assembled in the ignition circuit without proper consideration of their service relation to each other, or their fitness for economical operating. Timers of the make and break type are too frequently designed to close the battery circuit for a time in excess of ignition requirements. Spark coils of the vibrating sort are frequently so constructed that delicate adjustment of the trembler is impossible, or not understood by the operator. These conditions cause an extravagant use of battery energy, resulting in subsequent ignition troubles, generally attributed to batteries, but in reality entirely foreign to them.

Tracing Ignition Troubles.

It is sometimes very perplexing when an engine stops suddenly, refuses to start, or misses, to tell just where the trouble lies. We give here a general outline of a process of elimination to ascertain whether or not the trouble is in the ignition system.

(1) Turn the engine over slowly and see whether each section of the coil buzzes. If they all buzz, the trouble is not in the (a) batteries; (b) timer; (c) connections on primary or battery circuit; (d) primary windings of coil; (e) contact points on vibrator. This leaves the high tension wiring, including the ground wire, spark plugs, and secondary winding of spark coil.

(2) Remove the spark plugs, reconnect the wire, and lay plug on top of cylinder so that the threads of the plug touch the metal, but do not let the top of plug to which the wire is attached, touch any metal. Then turn the engine over until you hear a buzz. See if you get a good spark at plug. Repeat this for each plug. If you get a good spark at each plug, you have eliminated all ignition troubles. It sometimes happens that there is a connection loose, but not entirely broken. When the engine is stopped, this connection may touch and apparently be O. K., but when the engine is running, the contact becomes uncertain, and causes the engine to miss or stop altogether. This poor connection will usually be found in the battery box.

If you have located the trouble in the ignition system, note the following points: When you turn your engine and do not get a buzz, it indicates one or more of the following troubles: (1) disconnected ground wire from coil to engine; (2) disconnected or broken wire in the battery circuit (break may be inside insulation); (3) timer does not make proper contact; (4) broken connection inside of coil; (5) coil has been wet or is damaged; (6) vibrator contact points stuck; (7) weak batteries (may be tested by pocket ammeter).

First Aid in Engine Troubles.

To battery motorcycle operators not thoroughly familiar with engine construction and operation, we wish to offer a few suggestions that may be helpful in times of trouble. The points mentioned do not cover all of the possible causes of trouble, but are among those most common.

Engine Firing Irregularly.

May be caused by (1) broken down insulation on wires; (2) carbureter not properly adjusted, causing poor mix; (3) cracked spark plug; (4) a defective connection at some part of the circuit; (5) gasoline feed partly choked; (6) moisture on spark plugs or water in oil case; (7) poor contact in timer; (8) Spark coil not properly adjusted; (9) Terminals on coil may be loose or damaged.

Engine Emits Hissing Sound.

May be caused by (1) broken spark plug; (2) cracked exhaust pipe; (3) loose union where exhaust pipe connects with muffler.

Engine Fires Regularly but Is Weak.

May be caused by (1) compensating valve on carbureter not working; (2) improper gas mixture; (3) insufficient lubrication; (4) platinum contacts on coil may need cleaning; (5) poor compression caused by loose plugs or valves; (6) reduced lift on exhaust valve; (7) silencer outlets may be stopped with mud or charred oil; (8) vibrator on coil may need adjusting; (9) weak spring on inlet valve.

Engine Weak and Crank Case Hot.

May be caused by (1) crack in piston head; (2) leak of burned gas past piston rings which may have become worn or broken.

Engine Refuses to Start.

May be caused by (1) broken or jammed gears; (2) dry cylinders; (3) battery plug not in position; (4) fouled or cracked spark plug; (5) gasoline shut off; (6) improper gas mixture; (7) improper ignition; (8) inlet valve stuck; (9) open battery switch; (10) poor compression; (11) water in gasoline.

Engine Stops Suddenly.

May be caused by (1) broken spark plug; (2) disconnected electric circuit; (3) loose terminal; (4) no gasoline; (5) trembler on spark coil stuck; (6) trouble at timer; (7) broken wire.

Gradual Slowing Up with Misfiring.

May be caused by (1) carbureter may be choked up with dirt at jet; (2) gasoline tank empty or air bound; (3) gasoline valve partly closed; (4) fouled spark plugs, due to over or poor lubrication.

Conditions that Affect Ignition.

When a gasoline motor misses explosions, nine times out of ten the operator assigns it to a weak battery. This is wrong, for there are a number of things that cause missing, not the fault of the battery. Here are a few of them:

If mix is lean or does not contain enough gasoline vapor, the engine will miss and show a lack of power, and in most cases will cause popping or back firing in the carbureter. If mix is over-rich with gasoline vapor, the engine will run poorly and show a lack of power. This is usually accompanied by an exhaust that is smoky and foul smelling.

Loose connections in wiring will cause missing. Be sure that connections on motor, coil and battery are carefully and securely made. This is very important. Timers on some motors are so designed that poor contacts are caused as soon as the timer wears. Others are of such design that an accumulation of oil or dust prevents clean metallic contact. Either of these conditions will prevent regular running and cause missing.

Cracked or leaky spark plugs cause missing. Leaky valves in engine cause irregular running and missing. Improper adjustment of spark coil may cause so severe a drain on the battery as to prevent its giving satisfactory service. It causes missing and prevents the engine from responding quickly to its throttle. Proper adjustment of coil will overcome this.

WITH THE CLUBS

"REDSKINS" OF A WISCONSIN TOWN ORGANIZE AND "GET BUSY."

ON Thursday evening, April 7, several riders of Monroe, Wis., met at the First National Bank for the purpose of organizing a club. As all of the riders in the city own Indians, and nearly all red ones, it was decided to call the club "The Redskins." The following officers were elected: Big chief, Harry Keegan; little chief, Nick Durst, Jr.; historian, C. A. Carpenter; wampum carrier, Jacob Steffin; medicine man, F. T. Odell; scout, Lewis Dodge; interpreter, Ferd. Ingold, Jr.

The Redskins made their first scout to Brodhead on Sunday afternoon, April 10, hitting the return trail at 4 p. m., and arriving at their wigwams in time for supper.

Several incidents occurred along the way which added to the enjoyment of the afternoon. Although the roads were very dry and dusty, the riders were warned that there was a mud hole on the road to Juda that had no bottom. When they arrived at this spot, and before all got through, they were of the opinion that there was foundation for the report (only). A 3½ Indian was the first to attempt to go through, and the rider sank gracefully into the murky ooze. Next came the Big Four, and the rider was nearly through when a trifling error in judgment put him out of the running, but not out of the mud. Close behind came a 5 h. twin, and the rider in order to avoid running into the stalled machine ahead turned a little too far to the left and his machine went up to the hubs, but still kept on working until shut off by its owner. After this came four more twins that made the trip across "The Styx," as it was dubbed by the more unfortunate riders, without mishap.

Between Juda and Brodhead there is a hill that is a real hill, and the picture language interpreter started ahead in order to take a snap shot of the braves as they were ascending. Soon the "crack, crack" of the twins, the steady "chug, chug" of the four and the "snap, snap" of the 3½ singles could be heard, and the twins romped up, then came the four with deliberate and measured exhaust, and finally the smaller machines, making dust and fuss. All made the ascent without trouble.

As the big chief was detained for a short time in Monroe another brave who was going to Janesville offered to ride his machine to Brodhead, and the chief could ride it back. The tribe met the big chief with becoming ceremony on arrival of the iron horse, and he was accompanied to the wigwam of the hotel man where the interpreter took a picture of the braves in all their war paint.

The wampum carrier was much concerned over the loss of his timepiece at Brodhead, but his face was a study when the solemn big chief produced it, as he thought it was miles away on the trail. He was forced to part with some of his wampum at Juda on the homeward trail to square himself and silence the grins of the other braves.

HISTORIAN.

PORTLAND CLUB'S BIG PLANS.

THERE is some question as to whether the local automobile club will hold its races this year at Rose Festival time. But if the automobile people do fall down, it will not be so with the motorcyclists. They have leased the Country Club track for May 30, and will pull off ten events of varying lengths up to the 15-miles, one for 7-h. machines. Three hundred dollars' worth of prizes will be offered. The local riders have some expert amateurs, among whom are Fred Lynd, Ed Greeshamer, Fred Nowatny, Otto Muesig and W. P. Brush.

Owing to the recent accident, the club makes the announcement that it was not one of its members who was concerned. It has a rule that any member found guilty of speeding will be expelled from the organization and will not be permitted to take part in any of its events.

* *

CLUB IN MONTREAL.

AUTOMOBILES and flying machines have recently proved of great interest to Montrealers, but the intimation that there has been organized a motorcycle club will no doubt be a surprise to most people having regard to the fact that one very seldom sees a bicycle on the Montreal streets other than that worked solely by human energy. The new organization is the Outremont Club. The full season's program has not yet been drafted, but Mr. Victor Gracel, the president, states that the club's headquarters will probably be situated near Parc Lafontaine, negotiations being pending to secure a site in that vicinity.

* *

LANS for the permanent organization of the motorcyclists of Spokane were recently perfected, the committee in charge of that task being composed of M. C. Wyrick, Charles Wood, James Auld and Mr. Mullen.

SAN BERNARDINO'S PROMISING CLUB.

PERMANENT organization of the San Bernardino (California) club was recently affected by the election of the following officers: President, E. D. Gardner; vice-president, H. R. Stowe; secretary and treasurer, George Segars; captain, Clyde Pearson; first lieutenant, Ray Peck, and second lieutenant, Robert Hackney. The club has a charter membership of 65 and there is no lack of enthusiasm. Among the projects already afoot is one to build a saucer track and another to establish special club headquarters. Several runs have already been conducted and a fine season's programme is being prepared. Women are eligible to membership and several have already joined.

* *

NEW CLUB IN VIRGINIA.

AT the invitation of Eph Ball of Norfolk, seventeen riders recently met at the Fairfax Hotel and there organized the Motorcycle Club of Tidewater, Va. The following officers were unanimously elected: James J. Brownley, president; J. Stanley Trice, vice-president; Phillip M. Prescott, secretary and treasurer; C. O. Thayer, captain; Charles Gerloff, first lieutenant; S. B. Hutchins, Jr., second lieutenant; executive committee, G. M. Ball, J. A. Addenbrook and T. M. Gamage.

* *

HABICH ENTERTAINS INDIANAPOLIS BOYS.

THE annual outing of Indianapolis riders was held on April 24, all riders in the city being invited to participate. Early in the morning the riders assembled at the store of Gus Habich, agent for the Thor, and rode to Driftwood Park, about thirty-six miles southeast of the city. At the park, the day was spent in fishing and in eating a fish dinner provided by Habich. More than one hundred riders participated, Habich meeting all expenses.

SAVIN ROCK RUN JUNE 5.

SUNDAY, June 5, is the date set for the third annual Spring Run to Savin Rock (Conn.) to be conducted, as usual, by the Concourse Club of this city. This event has come to be quite a little classic in metropolitan riding circles. All contestants covering the course within the time limited, between 5 and 7 o'clock in the evening, will be awarded silver medals. A large trophy cup will be given to the club having the highest percentage of points. The schedule calls for an average speed of 18 miles an hour and there will be a number of secret controls. The entrance fee is $2 and blanks may be had by addressing W. A. McClelland, Jerome avenue and 165th street. This run ought to be a hummer.

* * *

AKRON A GOOD TOWN.

BEFORE the first of June the Akron Club will have a membership of 100. This is evidence of the popularity of this form of recreation in Akron, for there were only a half-dozen riders in town a few years ago. At a recent meeting of the club a reorganization for the present season was effected and the following officers elected: President, L. G. Read; vice-president, K. K. Kempel; secretary, U. A. Bertele; treasurer, Tom Coleman; road captain, Glen Campbell; first lieutenant, E. G. Gammeter; second lieutenant, G. B. Baker.

* * *

WALTHAM CLUB REORGANIZED.

AT the home of W. A. F. Estes, on Alder street, a meeting of motorcyclists was recently held, and the Waltham (Mass.) Club reorganized with the following officers: President, W. A. F. Estes; vice-president, F. H. Paul; secretary, N. R. Guidrat; treasurer, E. H. Prescott; captain, W. M. Robidoux; lieutenant, C. E. Anderson; assistant lieutenant, Frank Popp.

* * *

INDIANA CLUB TO CONDUCT ROAD RACE.

ARRANGEMENTS are being made for a Memorial Day road race, to be held under the auspices of the Indiana Club of Indianapolis. The run will be from the State fair grounds to Lebanon, then to Noblesville and back to the fair grounds, something more than eighty miles. Prizes will be awarded by the club and by motorcycle dealers and other tradesmen of the city.

* * *

ONE MORE IN "SHOW ME" STATE.

ST. JOSEPH, MISSOURI, has an organization known as the Boosters' Motorcycle Club, which seems to be a pretty live bunch of riders. They recently conducted a little run to Maryville, and although there were only seven participants, all who made the distance reported having had an excellent time. A new constitution and by-laws have just been adopted and the club seems to be in a fair way to prosperity.

* * *

REDLANDS HAS A CLUB.

OVER thirty riders have already joined the Redlands (Cal.) Club, recently organized by the election of the following officers: Dr. C. H. Lashlee was chosen president; Fred Fowler, vice-president; Cecil Grigsby, secretary-treasurer; Edwin Stowe, captain; C. A. Gibson and C. A. Summerville, lieutenants. The first run was to Pomona, Sunday, April 17. The club will join the Riverside and San Bernardino clubs in racing meets at Association Park.

* * *

PIKES PEAK CLUB REORGANIZED.

AT a reorganization meeting of the Pikes Peak Club following a smoker at Sheff and Riggs' in Colorado Springs recently, the following officers were elected: N. E. Black, president; E. Mountain, vice-president; R. E. Scibird, secretary; Walter Husung, treasurer. The club has a charter membership of forty-five.

WORCESTER CLUB ELECTS.

AT the recent meeting of the Worcester Club the following members were elected to office: Ira C. Coombs, President; Chas. E. Hitchcock, vice-president; E. C. Wheeler, secretary; Robert MacDonald, treasurer; A. V. Amsden, captain; W. C. Fish, first lieutenant; Howard Clark, second lieutenant. Board of Directors—Geo. F. Clark, Frank L. Coes and E. R. Creamer.

* * *

A LIVELY PACIFIC COAST COTERIE.

"WATCH US GROW" is the slogan adopted by the Santa Ana, Cal., Club, and from all indications officers and members are keeping the natives busy witnessing their development into a progressive club with a large membership. At the present time fifty riders are affiliated and new members are being received at every meeting. Several runs, all of them well attended, have already been held, and an interesting and comprehensive programme is planned for the balance of the season.

* * *

FORTY MEMBERS IN CANTON CLUB.

THE Canton Club, organized with forty members, has elected the following officers: President, R. H. Domer; vice-president, W. H. Buchman; secretary-treasurer, R. E. Lane; captain, L. C. Nieschwitz; first lieutenant, H. C. Lehman; second lieutenant, H. Peters.

The club was formed to promote and protect the sport and expects to move into club rooms in a week or two, where all riders will be welcome when in the city.

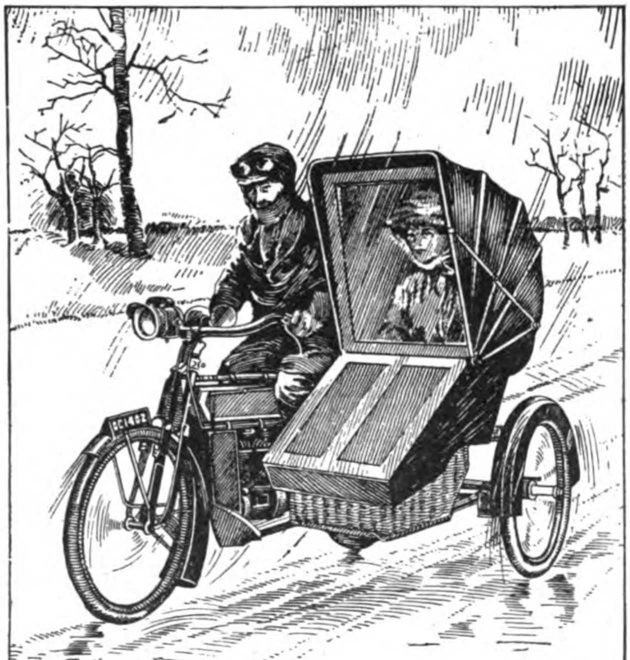
* * *

ANOTHER IN NEBRASKA.

H. J. DAVOLL, of the Lawler Cycle Company, of Lincoln, Neb., who handle the Harley-Davidson, is one of the prime movers in the organization of a club there. The following officers have been elected: R. S. Brewster, president; L. D. E. Walthers, vice-president; M. J. Touhey, secretary, and W. E. Gumbell, treasurer.

* * *

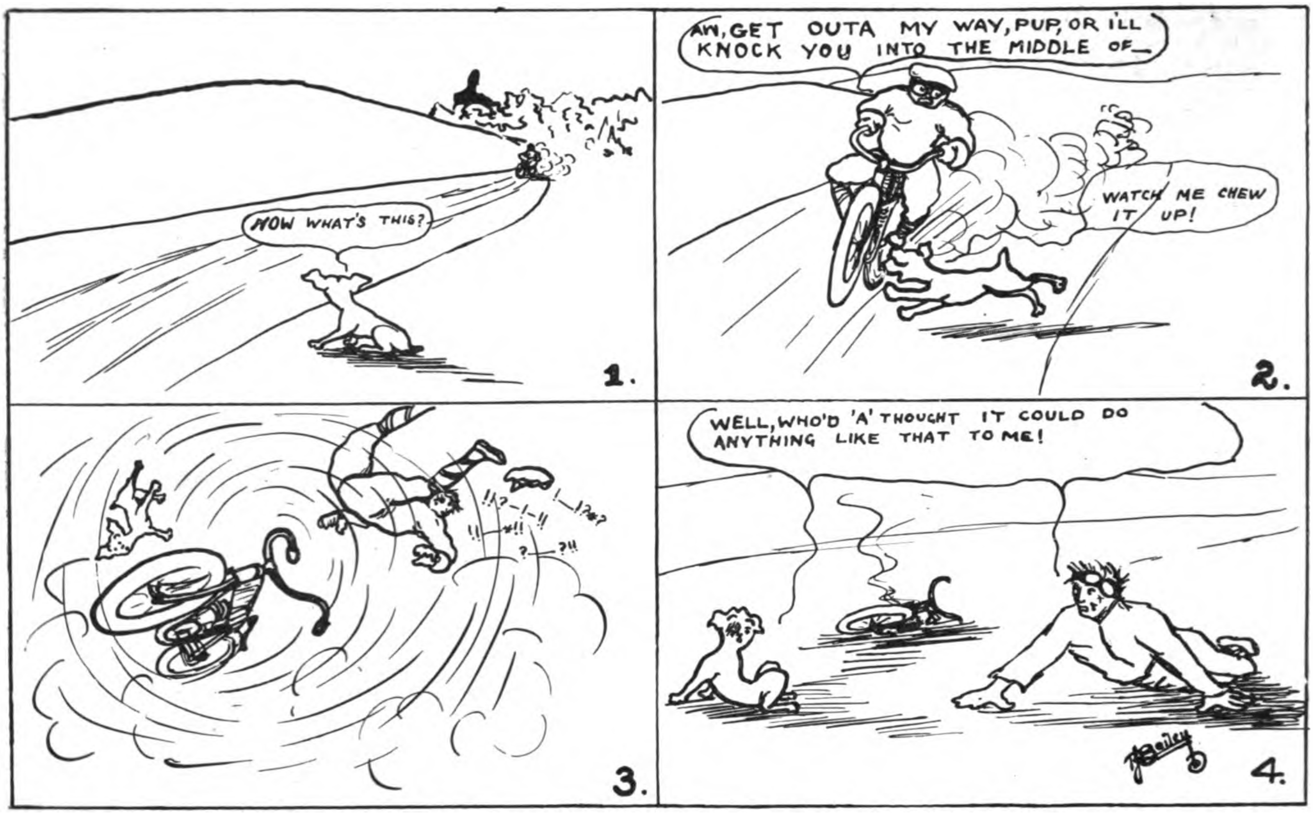
C. E. SYKES has secured the Indian agency for Clark County, S. D.



Courtesy Motor Cycling, London

Prepared for Bad Weather

PRANKS OF A PLAYFUL PUP


NOW WHAT'S THIS?
1.
AW, GET OUTA MY WAY, PUP, OR I'LL KNOCK YOU INTO THE MIDDLE OF—
WATCH ME CHEW IT UP!
2.
3.
WELL, WHO'D 'A' THOUGHT IT COULD DO ANYTHING LIKE THAT TO ME!
4.

OVERHEARD IN A GARAGE—A "MEDLEY" OF PARTS.

"SAY," said the air pump to the carbureter of the Thor, "I hear the emergency tank on that Indian came in full last night."

"Ah-h-h, you're windy," retorted the emergency tank, "your cap needs screwing down."

"He—hic!—cap alwash needs shcrewin' down—hic!—" interjected the storage tank in the corner, only to be interrupted by the pump.

"Shut up," it hissed, "you get full every time the wagon comes around." After saying this the pump blew its head off with rage.

"Huh," commented a voice from the Indian, "he's just like the grip on the twin there, always flying off the handle."

"There's that loud-mouthed muffler shooting off his hot air again," announced the magneto on the Thor, "he makes too much noise for his horsepower."

"You have wheels in your head," retorted the muffler.

"Well," said the magneto, "I may have wheels in my head, but none of them are flat. At any rate, I'm not cracked like that piece of insulation on the commutator."

"You've got a buzz in your bonnet!" cried the latter, "I'm not cracked."

"Have you noticed how thin that spark is getting lately?" inquired the cylinder of the piston.

"That's not my fault, you thick-headed slab-sided specimen of a gas basket! Tryin' to lay the blame on me, are you?" sneered the spark plug.

"Yes, you're a bum shot. You couldn't hit straight ten times in succession if you had to," added the piston, with a great deal of assurance.

"We'll see about that," yelled the spark plug, taking aim. The piston dodged, and the plug misfired, anyway, so nobody was hurt.

"That was a quick dodge," remarked the connecting-rod.

"Yes," said the piston, as it cleaned its rings on the upstroke, "I got my jewelry scratched a little."

"Say, is your job a hard one?" the inlet valve asked the carbureter. "You seem to be sweating all the time."

"Goodness, yes, that crazy throttle is always wide open and I have to hump myself to keep up with it."

"Don't lay it onto me," said the throttle, "the trouble is all with you; you're too stuck-up to work."

"Ah-h-h, cut off your gas," said the engine. "I'm getting tired. If this nonsense keeps up much longer I'll be clean off my base!"

IT is good practice to learn to judge distances accurately, so as to be able to slow down and stop at the right spot, without having recourse to the brakes. This is the ideal method of driving, not only enhancing its enjoyment, but increasing the life of the tires and the power plant generally. The brakes are only intended for emergency anyway.

* *

SOAPSTONE is a very good lubricant to lessen the friction caused by the rubbing of the inner tube against the shoe. This friction is considerable and causes quite a degree of heat in the whole tire. Soapstone is a finely powdered material which penetrates into every pore and interstice of the inner tube and outer shoe. It is used almost universally. Flake graphite is also a favorite lubricant for this purpose. Some users prefer it to soapstone.

* *

CHAIRMAN THORNLEY has issued a sanction for a two-days' meet on the Hawthorn track in Chicago over Decoration Day. The meet will be conducted under the auspices of the North Shore Club and have the support of the Chicago organization.

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J. Leo Sauer

L. H. Cornish - - - - - - - *Advertising*

HUMAN NATURE A BIG FACTOR.

OUR esteemed New York contemporary indulges in a series of first-class arguments in an effort to contradict our claim that the three-part classification recently incorporated in the F. A. M. competition rules is better than the old arrangement. We have already on several occasions expressed our acknowledgment that the new classification was by no means perfect and that it could not be considered as a permanent solution of the problem. As a matter of fact, we doubt whether any species of mere rules will do away with the manifold difficulties which surround the proper control of sporting events. As long as men are men and as long as human nature is weak, there will be infractions, some of them very serious, many of which will go unpunished, at least for a time.

It seems that, as is the case with national, State and municipal legislation, the law-*breakers* are always a little ahead of the law-*makers*. That is, they devise means of fracturing legislation faster than the law-makers enact efficient statutes. Probably the best we can do is to make our laws and our rules of sport as nearly unbreakable as possible. Of course, the character of the men appointed to enforce laws and rules is always an important consideration. But to assume that any law or any rule of any consequence can always be enforced is to confess that the best social, political, business and sporting arrangement would be a complete network of laws and rules, with every possible contingency provided for. Some may entertain that view; a good many thorough-going Socialists do, but there is still a large number of thinking folk who believe that the fewer laws we have, the better our condition. It is still largely a matter of personal opinion, with the millenium in sports as well as politics and society, far, very far away.

A LESSON IN ADVERTISING.

BACK of the failure of the Hornecker Motor Manufacturing Company, of Geneseo, Ill., recently forced into bankruptcy, lies the inexperience in sales matters of some of those who capitalized the concern. This admission was made to the writer by Mr. Hornecker himself, whose energy and enterprise, also his understanding of the sales requirements of modern business, were seriously obstructed by the attitude of the well-meant but mistaken folks who were financing his company. Their view of the matter may be summed up in the query credited to one of them, as follows: "If people want motorcycles why don't they come here and buy them?" The Hornecker Company did some advertising, but it was of a spasmodic, uncertain order. It was not consistent, not regular. They were building a good machine, but it lacked the right sort of exploitation. Their failure to advertise judiciously is almost entirely responsible for the present unfortunate condition of the company's affairs. The lesson is so plain that it requires no further comment.

* *

WHEN A FORK BREAKS.

PRESS clippings are already showing the usual spring run of accidents. Invariably do the details prove that the rider and not the machine was at fault. For example: Two young men of Marlboro, Mass., were recently thrown from a machine not strong enough to safely accommodate their combined weights, at least not in the manner in which the machine's burdens were distributed. Result, a broken fork, and painful injuries to both riders. No doubt these youths had meant well and it seems that they were not at all excessively reckless. But they demanded too much of their motorcycle, more than the machine had been designed and built to do. It is only good luck that prevents an accident when motor and frame are called upon to accomplish results all out of proportion to their strength and durability. Of course, there is absolutely no excuse for fork breakage when a motorcycle is properly used, but tandem riding involves a certain risk. This is demonstrated very seldom, but the likelihood of trouble is always present.

* *

HELPFUL TO BOTH NOVICE AND EXPERT

A RATHER formidable looking Trouble Chart is published on pages 24-25 of this issue. Having read your paper through, carefully remove the two pages on which the chart is printed and fold them away in your wallet or tool bag. The time will come when the information to be gleaned therefrom may save you an irksome wait or even a long and weary walk beside a disabled machine. This chart provides a practical solution to every difficulty at all common, and to many which the rider faces very seldom. In other words, the chart has been made somewhat more comprehensive than would ordinarily be necessary, and for that reason its apparently forbidding list of troubles to which a motorcycle is heir should not discourage the beginner. Besides, many of the causes are mentioned more than once, as they may produce different symptoms.

* *

TRADE LEADERS FOR MORE PUBLICITY.

A VERY good idea, that of a publicity campaign to be conducted by the Motorcycle Manufacturers' Association. It is true that with a little steering, the newspapers could be made more valuable to the trade and more helpful to the sport than they are today. No matter how little were done to show the press the best side of the sport, such effort would be effective. The association has appointed a committee, doing well in choosing A. B. Coffman as its chairman. Coffman is a student of publicity and thoroughly understands advertising. He is just the man for the place.

ON TRACK, ROAD AND HILL

McCONE, ON AN EXCELSIOR, ESTABLISHES NEW ROAD FIGURES IN THE SOUTH

SUCCESSFUL beyond even his fondest hopes was the effort made April 23 by Earl J. McCone, captain of the Savannah (Ga.) Club, to break the road record between Savannah and Augusta. McCone rode a single Excelsior, leaving the office of the Savannah *Morning News* (the leading daily of this section and a booster for improved roads) promptly at one o'clock Saturday afternoon, and immediately on reaching the outskirts of the city he settled down to business. The first twelve miles were over good roads and excellent time was made, but from the twelve-mile post to Statesboro, fifty-four miles away, there was nothing in the way of roads excepting the bottomless sand beds for which that section of Georgia is famous. Statesboro was reached in 1.58, which was two minutes better than any previous motorcycle record, and about one hour better than any known auto record. At Statesboro a stop of ten minutes was made for supplies and then the second section of bad roads was attacked. Millen, Ga., 82 miles from Savannah, which point marks the end of the unimproved roads, was reached in 3.25 and from there into Augusta only the high spots touched McCone's M. & W. Bailey tread tires. Waynesboro was the next city after Millen. His cyclometer showed that he was 104 miles from Savannah and his watch gave the lapsed time as 4.05. Another stop was made there for supplies. Leaving for the finishing lap into Augusta, he simply disregarded every thought of personal danger and tore through the winding hilly roads. The Excelsior motor, which had seen 15,000 miles of service in the past twelve months, covered the thirty-three miles of hills between Waynesboro and Augusta in forty-eight minutes flat, including the lost time due to slow riding from the outskirts of Augusta to the central portion of the city. Immediately upon the finish of the run McCone reported at the office of the Augusta *Chronicle,* thus authenticating his record.

This ride not only smashed the previous motorcycle record of 9.35, but also broke the automobile record of 5.40, made by one of the most famous drivers in the South and with a 60 horsepower car that was primed for the run. There have been a great many previous attempts to establish something better than the old records, but those familiar with the roads lying between the two cities state that the highways will have to be very much improved before McCone's record can be endangered.

MORE LAURELS FOR SEYMOUR.

NO less than 3,000 persons witnessed the races at the Association Park track in San Bernardino recently. Raymond Seymour, on a Reading Standard, proved the best performer, capturing three firsts. The winners: Five miles, stock machine, Frank Montgomery; time, 5:55. Five miles, stock machine, Art King of Riverside; time, 5:31. Three miles, free for all, single cylinder, Raymond Seymour, of Los Angeles; time, 4:42. Five miles, free for all, single cylinder, Frank Montgomery, of Los Angeles; time, 5:44⅕. Five miles, free for all, double cylinder, Raymond Seymour; time, 5:03. One mile, Riverside motor cup for single cylinder, Art King; time, 1:06⅕. Three miles, free for all, novelty race for double cylinder, Hubert Kittle; time, 4:05⅘. Ten miles, free for all, double cylinder, Raymond Seymour; time, 10:42. One-half mile, Hubert Kittle, of Los Angeles.

* *

ENTRIES are coming in rapidly for the big two-day endurance run to be conducted under the auspices of the New Jersey Club. The committee expects to have more than a hundred starters. A party of club members headed by George Post recently rode over part of the route of the run, which will be held over Decoration Day.

Earl McCone, Who Broke Savannah-Augusta Record.

COAST TO COAST BY POP-POP.

JUST for the fun of it, V. E. Davis, vice-president of the San Francisco Club, is making the trip from San Francisco to New York on a motorcycle. He arrived in Kansas City a few days ago, having covered three thousand miles of his journey. He left San Francisco Feb. 5 and expects to reach New York in a month or six weeks.

"It has not been altogether a 'joy ride' by any means, but I have enjoyed much of the trip, and I am getting my money's worth," Davis said. "I have no schedule to follow. I am not trying to make or break any record."

Only once since he left San Francisco has Davis deserted his machine. He was forced to do so near Mulvane, Kan., a few days ago, when one of the handle-bars broke. Wichita was the nearest repair station, so he prevailed on a farmer to leave his cornfield long enough to haul the machine there for treatment.

Over a thousand miles of the trip has been made on railroad ties. It was necessary to use this bumpy path while crossing the Yuma Desert, as the deep sand made travel practically impossible otherwise. East of the desert Mr. Davis found Texas mud as serious a barrier as Arizona sand and again made use of the ties. Much better roads were found through Oklahoma and Kansas.

"I want to ride back to 'Frisco from New York in order to be the first man to make the round trip, but I may get out of the notion after I reach New York," Davis said.

POUGHKEEPSIE MEET A BIG ONE.

HUDSON RIVER DRIVING PARK will on Decoration Day be the scene of what is likely to prove the biggest race meet ever conducted in or near Poughkeepsie. The arrangements have been practically all made and entry blanks are now out. There will be ten events, so arranged as to give everybody who can do anything on a track a chance to distinguish himself and also to win one of the twenty-eight beautiful and valuable prizes which will be given to successful competitors. Woodbury A. Gindele, 52 Market street, Poughkeepsie, N. Y., is the man to whom to write for entry blanks.

COLLINS HILL-CLIMB WINNER.

MEMBERS of the San Francisco Club held a hill climb April 10, which was quite interesting as long as it lasted, the sport being cut short after the fourth event by the rain. The contest was held on the Folsom street hill, beginning at Army street and running up the 25 per cent. grade for 1,380 feet.

The first event was for single cylinder 4-h. stock machines. W. G. Collins on an Indian won in 41 seconds. Then came E. Blake on a Thor in 44 seconds, E. Stone on a Thor in 47⅖ seconds, and Katchnitzki on a Thor in 50 seconds. The second event was for twin cylinder machines of 5 and 6 horse power. W. G. Collins on an Indian won in 29⅖ seconds. Then came E. Green on a Thor in 35⅘ seconds, and L. Robbins on a Thor in 36⅘ seconds. The third event was for tandems. There was but one entry. Collins and Broderick went up on an Indian in 40 seconds. The fourth event was a free for all for machines of 7 h. It was won by E. Blake on a Thor in 24⅖ seconds; S. L. Peterson, on a Curtiss, 35⅕ seconds; H. Kohl, on a Puegeot, 35⅘ seconds.

* *

PLAN BIG RUN IN COLORADO.

COLORADO SPRINGS.—For the first time in the history of Colorado Springs riders an endurance run will soon be held by local devotees of the popular pastime from the Springs to Cheyenne, Wyo., and return. The schedule calls for 19½ miles an hour, with ten hours of riding for each of the two days, which will be May 29 and 30. At least fifty motorists will participate in the run over a course which, excepting for a short distance between Colorado Springs and Denver, is one of the most ideal in the country. Motorists from Pueblo, Denver and several surrounding towns and cities will take part in the run, which will be held under the auspices of the Excelsior Motorcycle Association. Articles of incorporation for the new association have already been forwarded to Denver, providing for the issuance of stock to the extent of $10,000.

* *

OVER LONG ISLAND ROADS.

ENTRIES are coming in with satisfactory rapidity for the annual Spring run of the New York Club which, as already announced in this paper, will be held on Sunday, May 1. Attention is particularly called to the fact that a handsome trophy will be awarded to the club having the largest number of participants in the run. There will be two divisions or, to be more specific, four sections. That is, two divisions, one at 6 o'clock and one at 9 o'clock in the morning, will be started from the New York clubhouse, 2650 Broadway, and two other sections, also at 6 and 9 o'clock respectively, from Bedford Rest. The destination of both sections starting at 6 o'clock will be Southampton (L. I.) and of the other two sections, starting at 9 o'clock, Patchogue (L. I.). The entrance fee is only $1 and blanks may be had from the N. Y. M. C., Contest Committee, at 2312 Broadway, New York.

* *

RODRIGUEZ NOW BEYOND CHICAGO.

GOTTFRIED RODRIGUEZ, the Dutchman who, on an M. M. machine, is determined to encircle the globe, has reached Chicago. From that city he intends to travel westward to Omaha, Salt Lake City and San Francisco, where he will embark for Japan. After crossing the Empire of the Mikado, he will take a steamer for Vladivostok and cross Siberia along the line of the Trans-Siberian Railway.

* *

DEFINITE information was lacking at the time of our going to press and we are able to announce simply that riders of the Harley-Davidson machines won first, second and third places in two races at Oklahoma City a few days ago.

HERRING RUN WELL ATTENDED.

Where the Boys Stopped for Luncheon.

DESPITE the fact that the day was cold and cloudy, about 150 riders took part in the annual "Herring Run" conducted by the Providence Club a week ago Sunday. After a view of the herrings coming up the fishways, the cyclists rode to a place in the country about three miles outside of Taunton where, as the guests of B. A. Swenson, the participants were served with refreshments. The lunch was arranged by Beauvaris Brothers, the Indian agents in Taunton.

As usual, half of the riders were lost after their visit to the fishways and in consequence missed the many good things which were served at the old-fashioned place where luncheon was had. William Scott had thoughtfully provided a box of "Old Coon spark plugs," which were thoroughly enjoyed after the meal, while the non-smokers played ball out in a potato field.

One big run a month will be held by the Providence Club during the season, the next one to be the Picture Run, which will take place about May 15. The first objective point will be Narragansett Pier, while those who have the hardihood to try to make their way through a mile or two of deep sand will go on to Point Judith.

* *

HARLEM CLUB'S SPRING RUN.

ENTRY blanks are out for the Spring Run of the Harlem Club on Sunday, May 15th, to Newburgh and return. The run will start from the clubhouse, 61 West 124th street, at 8.30 a. m., and the route will be up to Fishkill Landing, checking at Peekskill on the east side of the river, thence crossing over to Newburgh, where a dinner stop will be made at the United States Hotel. The return trip will be started at 1.30 p. m. and will be made on the Jersey side. Riders will be checked at Tuxedo and at the finish, but no time will be taken at any of the checking points except at the end, and in order to receive one of the handsome sterling silver enameled medals which will be awarded to survivors, riders must finish not later than 6.30 p. m. nor earlier than 5.30. The entrance fee is $2 and blanks may be had from R. T. Wennstroem, Jr., 1491 Fifth avenue.

* *

HARLEM BOYS ON BRIGHTON TRACK.

ON the Brighton Track, which was in very poor condition and with a gale blowing from the ocean, the Harlem Club informally ran off a few friendly races last Sunday. The summaries: Two miles for singles—Won by Constant (Excelsior), 3.28⅘. Two miles for doubles—Won by M. Coursen (5 Indian), 2.34. Five miles for singles—Won by Rosen (Excelsior), 7.49. Inter-club race—Guterman and Coursen, of the Harlem Club, won. Time for two miles, 2.23. Ten-mile handicap—Won by Coursen from scratch on 5 Indian in 11.28. Three-mile scratch race—Won by Mercier (Indian), 3.15.

DE ROSIER IS AGAIN DEFEATED.

RALPH DE PALMA met Whittler and De Rosier in a championship race at Los Angeles last Sunday, Whittler winning both heats, also the free-for-all. De Rosier was bailed out of jail in time to ride. There was a small crowd because of the charges recently preferred against the Frenchman by a young girl. To add to the excitement, Graves and Seymour were disqualified for reckless riding. The summaries:

Six mile, single cylinder, stock machines—Won by F. Montgomery (Excelsior); C. Briggs (Excelsior), second; time, 6.36⅖. Ten mile, trade riders, singles—Won by Graves (Indian); Seymour (R-S), second; Ward (Merkel), third; time, 10.16⅕. Graves and Seymour disqualified. Eight mile, trade rider, seven horsepower—Won by Seymour; Graves, second; time, 7.41⅖. Twenty mile, professional—Won by F. E. Whittler, Salt Lake, (Merkel); Michell (Merkel), second; De Rosier (Indian), third; time, 17.58⅗. Amateur tandem exhibition—Graves and Knappe—mile in 58 seconds on Indian seven. Six mile, professional match race—First heat won by Whittler (Merkel); De Rosier (Indian), second; De Palma (Merkel), third; time, 4.58⅘. Second heat—Won by Whittler; De Rosier, second; De Palma, third; time, 4.59⅘.

* *

A STORY WITH A MORAL.

READ this, and then announce your conclusions:

"Long Beach, Cal.—F. K. Van Fossen, rural mail carrier, after a few weeks' experience with a motorcycle collecting and delivering, has applied to Postmaster Hirsch for a return to his old schedule with horse and cart. Van Fossen could carry and deliver mail rapidly, but his machine required a running start after every stop at a mail box and it proved wearisome. His request has been granted."

Did anyone whisper two-speed gear?

* *

WON 10-HOUR RACE.

MELVILLE HAYES won the ten-hour race around Capitol square in Dayton, O., recently. He finished at 6 o'clock with 152.3 miles to his credit. John A. Yates was second with 136.8 miles. Will Woodrow, of Clintonville, started, but was taken ill, and his stunt was completed by Harvey Keintz, of Dayton. The aggregate mileage of the three machines was 425.7.

* *

INDIANAPOLIS FEE ONE DOLLAR.

AN ordinance was passed in Indianapolis some time ago requiring that all motorcycle riders register with the board of public safety and pay a fee of $1, which does not have to be renewed. The ordinance forbids a license being issued to any person under seventeen years of age.

Motor Cycles &
SHEFF & RIGGS.

A Few of the Members of the Col. Springs Club.

THE AUTO FASTEST OF ALL.

A COMPARISON of Barney Oldfield's recent Daytona Beach mile straightaway record with all other speed performances shows that there is of man's making nothing faster than an automobile, not excepting steam locomotives, aeroplanes and motorcycles. In fact, Oldfield has gone so much faster than anyone other than a cyclone rider that there is likely to be a fortunate diminution of intensity and enthusiasm in the efforts of motorcycle racers to equal the records of the four-wheeler. We are not at all displeased that the speed accomplished by Oldfield in an auto seems for a long time unattainable by a motorcyclist, even under the most favorable conditions. The automobile has been popularized not because of but aside from its capacity for excessive speed. That it is fast is undoubtedly a factor in its marvelous development, but speed beyond a certain point has made comparatively few friends for the automobile. It is so with the motorcycle. That is why one need not envy the automobilist his space-annihilating superiority. He will soon tire of occupying his present lofty pedestal in the world of things that go fast.

* *

IN CHICAGO FLORAL PARADE.

MOTORCYCLISTS are going to play an important part in the big floral parade of the Chicago Automobile Trade Association which has been set for May 7, and which it is expected will attract from 500 to 800 automobiles. An offer on the part of the Chicago Motorcycle Club to participate in the parade made to Chairman Kelly of the parade committee was accepted.

The riders of the two-wheelers have agreed to act in the capacity of marshals, assisting in keeping the cars in line and at the same time helping in whatever other manner they can. Also motorcyclists will see that the small boy does not steal any of the floral decorations from the cars. After the parade gets well under way and out of the business districts the motorcyclists will form a section of their own.

* *

RACING IN COLORADO SPRINGS.

RACES will be held at Roswell Park under the auspices of the Excelsior Club of Colorado Springs, every two weeks this summer. The club will spend $500 in repairing the track and banking it up for a maximum speed of 75 miles an hour. The club, which has a membership of fifty of the leading motorcyclists of the city, has secured a three-year lease on the track. The officers of the club are: F. E. Stratton, president; G. P. Bartlett, secretary, and A. Robbins, treasurer.

* *

ANOTHER GLOBE GIRDLER.

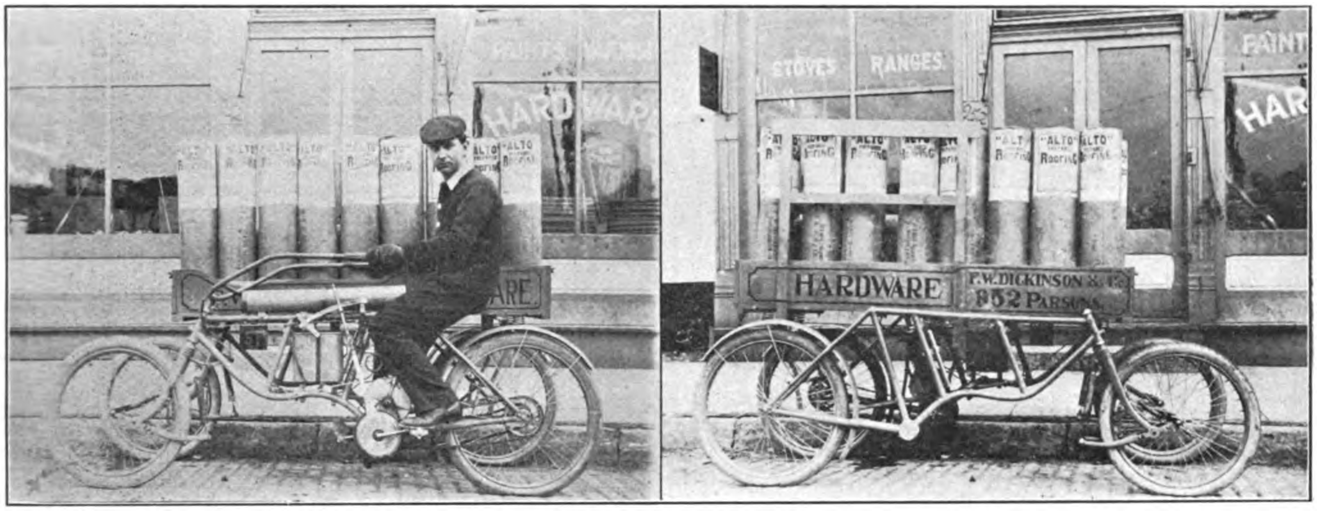
ALFRED ANDERSON, of Oklahoma City, has completed arrangements for a motorcycle tour of the world. He intends to sail from New York before the tenth of this month, with Naples as his destination. It is his purpose to tour Italy, part of Switzerland, France, Belgium, Norway and Sweden, where he will visit his old home in Stockholm. Thence he will go through Germany and Austria and back across the continent to Calais, where he will embark for a tour of England, Scotland and Ireland.

* *

RUN TO LEXINGTON.

WORCESTER club's run to Concord and Lexington, Sunday, April 19, brought out nine riders of the power wheel, Ira C. Coombs, E. R. Creamer, W. H. Tannerbring, E. A. Gilbert, Russell Coes, W. C. Fish, A. M. Bennett, F. L. Kidder and B. H. Cristy. The start was made from Only Square about 9:30 in the morning. After visiting Concord and Lexington, where they saw a parade and listened to a band concert, the riders had dinner in Waltham.

BUILT LIKE A MOTORCYCLE, WITH DOUBLE FRAME AND FOUR WHEELS



F. W. DICKINSON & CO., of Columbus, Ohio, are the owners of a unique and decidedly practical vehicle, two views of which are shown herewith. Except for the motor and transmission, they are also its manufacturers. The machine is fitted with a 2¼ h. Thor engine, hand cranked, with B. & C. two-speed and free engine device. The gear is 7⅛ to 1 on high speed. The muffler is an exact copy of the one illustrated and described in the Federation Special of Motorcycle Illustrated last summer. The machine, which is fitted with a very flexible spring fork, is in use every day, and often carries loads as heavy as 700 pounds. In fact, it has proven entirely successful and satisfies every purpose

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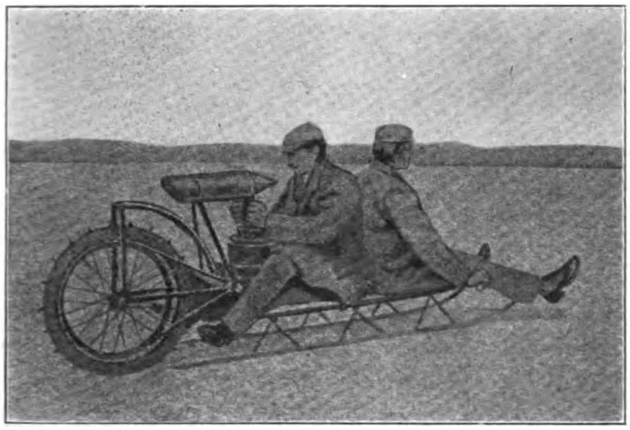
A MOTOR SLEIGH.

THE accompanying illustration shows the newly-invented motor sleigh which was used during the winter by A. L. Hilaman, of Moorestown, N. J. He states that he has attained a speed of thirty miles an hour with it. The device is a sled of the foot-steering variety, equipped with a four h. single cylinder engine, having a speed of 1,500 revolutions per minute. In a steel frame projecting from the rear is rigged the wheel of a motorcycle, over the rubber tire of which is clamped a steel band about two inches wide, containing eighteen teeth four inches apart and two inches high. These teeth are cut to a sharp edge, and when the machine is in action, dig down into the snow or ice, thus giving the propelling power.



The wheel is connected with the engine by means of a heavy leather belt, and a steel lever easily under the control of the driver and operating a hinged frame, either lifts the wheel off the snow or drives it down against it, thus acting as a throttle and causing the sleigh to stop or proceed at full speed, as required. The gasoline is, of course, contained in the torpedo-shaped can seen in the picture. It is needless to add that the "contraption" has been productive of much exhilarating sport.

GUMMY VALVE CAUSES TROUBLE.

"MY engine won't start," declared a local rider the other day. "I have been unable to use it for several days. I am completely stumped. Spark seems good. Compression is O. K. and I think it is getting gasoline."

An investigation showed that this man was correct in that the spark was good and engine getting gasoline, but he was mistaken about its having good compression. When the fly wheels were turned over forward very slowly or pulled backwards, the compression was good, but when they were revolved rather rapidly forward at the rate one would turn when starting an engine there was practically no compression.

The exhaust valve was sluggish about closing. It was "gummy" or, in other words, the valve stem was bound by a "sticky gum" that remains after using improper oil or allowing an oiled bearing to stand for a long time without use. Sometimes heat will cause oil to evaporate and leave a gum behind. The valve would close after a certain time, but so slowly that the charge would get out each time before it got seated. One could push it open and watch it close at something like a "snail's gait." In cold weather this is a frequent cause for engines not starting well. We oiled the stem thoroughly with kerosene and worked it by hand until the valve seemed loose and closed quickly. Had we warmed the stem it would very likely have softened the gummy oil sufficiently for the engine to have started.

When an engine has been standing idle for a long time or in a very cold place, it is a good plan to use kerosene on the valve stem, sparker, and in the cylinder before trying to start. An engine will turn much easier when cold if a little kerosene is first used on all other moving parts.

* * *

REPRESENTATIVES of the Standard Oil Company have recently been notifying manufacturers that it is impossible for the company to supply gasoline of a better grade than 64 degs. test except in the largest cities. This means that the tourist who is going cross-country cannot figure on filling his tanks with anything better than this low grade of gasoline.

QUESTIONS & ANSWERS

DOES TOO MUCH PEDALING.

I AM writing this to see if you will not help me out of a little difficulty I have got into with my engine. I have a 3½ Curtiss (1908) engine and I have trouble in getting it started. My batteries are new and the spark O. K. The compression is first class, the intake valve (automatic) seems to be all right also. Neither can I find anything the matter with the carbureter. It is clean and the pipes have no sediment in them. But the engine will not start readily, in fact sometimes I have to pedal half a block, and pedal hard too, to get it started. Sometimes it won't start without several such trials. Of course, the result is that by the time I get started all the motorcycle enthusiasm has been kicked out of me into the pedals. I am unable to locate the trouble although I have tried everything I could think of. I know it is not the fault of the ignition. I assume it must be in the carbureter, a regular Curtiss model. I feel sure that it does not draw the mixture into the cylinder readily. If it did I should think there would have to be an explosion. About how many turns of the pedals should it take to start a motorcycle engine when it is working right? It is hard to start mine even on the stand and much harder when I mount and pedal. CHAS. D. CURTIS.

Cincinnati, Ia.

There are one or two points which might be wrong here. The fault is in all probability the "gumming" of either the piston or inlet valve during cold weather, as the oil used in an air-cooled engine has a trick of doing this. Therefore if the piston is "stuck," it is hard to get the machine under way; also if the inlet valve is gummed up, as the automatic type sometimes does, the charge cannot enter the cylinder. Thus, if a compression cock is fitted to the cylinder head you can inject a few drops of gasoline to free the piston and we should also advise you to have a small hole bored just above the inlet valve, in case she sticks. This hole should have a spring cover fitted, as otherwise when it is not being used, and the motorcycle is running, the extra air entering this hole might upset the mixture, although at times you may find this an advantage, particularly in hot weather.

Another fault which could account for difficult starting would be a wrong adjustment of the contact breaker. However, we think that the first named remedy is the one most likely to be successful. Automatic inlet valves are known to stick, especially in cold weather, as the spring holds the valve to its seat and any oil or even scale will hold it down until the suction of the engine opens it and, after the firing has started, warms it up and ungums it altogether.

Laws of New York, Pennsylvania and Delaware.

B. A. AMES: At the present writing it is not necessary to obtain a license in order to ride a motorcycle in New York State. However, a new "motor vehicle" law is being considered by the Legislature, having already passed the Assembly, which provides that all "motor vehicles" of less than 25 h. shall pay a license of $5 per annum. Of course, it is a question whether that would include motorcycles. Pennsylvania recognizes the license of any State, which, in its turn, will accept licenses granted by Pennsylvania. With reference to Maryland, every resident motorcyclist must pay the Commissioner of Motor Vehicles in Baltimore $1.80 per anum for a certificate of registration for his machine, together with $1 additional for an operator's license. The latter, however, need not be renewed. When a rider obtains his license he also receives a number plate, which must be affixed to the rear of his machine. This law has just gone into effect, the commissioner having just opened his office in Baltimore. A non-resident motorcyclist who has complied with the laws of his State may use the highways of Delaware during two periods not exceeding seven consecutive days each in any year. However, this privilege is granted only to citizens of such States as recognize the registration of Delaware.

Another Gearing Problem.

I WOULD like a little advice in regard to the gear of my motorcycle. At present I have a gear of 4.96 to 1, with a 31 tooth rear sprocket. I find it rather trying to navigate a steep hill or a mountain road unless I get a very good start. In case I have to slow down on account of bad roads or other vehicles I cannot proceed without my engine knocking dreadfully. Then again I will have slowed down until my engine chokes and if not quite that far gone, if I turn on my throttle enough to get the desired power, on account of the steepness of the hill I invariably get my engine to race, which wears out my friction rings more than seems expedient. Now if I should use a 35 tooth rear sprocket with a gear of 5.6 to 1 (3½ h. p engine), I will undoubtedly be able to navigate hills better, but will there be any danger of overheating my engine? Which would you advise me to use, 31 or 35 tooth rear sprocket? 31 does very well for city use. J. C. MILLER.

Washington, D. C.

A gear of 4.96 on a three and a half should not be too high, unless it were for mountain climbing; a motorcycle geared at nearly five to one should take even a twenty per cent. grade, if the machine is well tuned up and in good running condition. For really bad roads we should advise slightly lower than this, and the 35 tooth sprocket will be just right, as it will reduce the gear to about five and a half to one. This will make for far better hill-climbing and as long as you do not drive too much on the throttle, there will be no danger of everheating in any way. It looks as if your engine is badly carbonized, in view of the knocking symptoms you describe. It would be best to give it a thorough overhaul before changing the gear, as your present gear is not too high for average roads. Also it looks as if that friction clutch needs some attention, because it should not slip as you describe, for when sent out from the factory these friction rings have only the slightest slip, sufficient for the easing of the drive and giving it elasticity.

Our advice is to first give the engine and transmission a thorough overhaul and then, if no marked improvement is shown in the running, to lower the gear. We think that you will find that the latter course will not be necessary in any way unless you are in the habit of riding over extremely hilly country.

Driving a Single Over Muddy Roads.

CAN a single cylinder machine be depended on to negotiate dirt roads when slippery and muddy during or soon after a rain? Is it necessary to attach chains to one or both wheels? Will the machine not skid badly? 2. My machine has run 800 miles and never given any trouble and runs splendidly, yet uses lubricating oil about twice as fast now as during the first 500 miles. The increased consumption has developed rather suddenly after the machine had laid up during the winter. Am using oil recommended by makers, and have cleaned with gasoline and kerosene several times. Can you explain and give remedy? NOVICE.

Any number of riders use single cylinders under the conditions you describe. Of course, skillful riding is quite necessary to prevent skidding, although that possibility also depends largely upon saddle position. If the saddle is placed low, about half way between the rear wheel and the engine, that circumstance would operate against sideslips. The use of a chain is advisable if there is sufficient clearance between mud-guard and tire, which is seldom the case. We know of one rider who in an emergency, in order to climb a steep hill after a heavy rain, used sash cord with quite satisfactory results. Of course it wore away quickly, but he managed to get to the top.

Are you sure that you are not giving your engine more oil than it needs? It is probable that the piston rings are worn and that the oil, escaping past them, is being consumed in the combustion chamber. In that event, however, the exhaust would be too smoky.

Runs Well but Starts Poorly.

H. J. THOLEN, Victoria, Kansas.—There may be several explanations of this difficulty. First of all, we will assume that you have the correct adjustment of the contact-breaker, as this is absolutely necessary for easy starting. Next you must take care that the points of the spark-plug are not too far apart, as this would also cause hard starting. Then be sure that the valves are not sticking in their guides. From what you say about the machine not using up any more than 15 amperes, your trouble looks like a mysterious short-circuit, hard to detect. Try for this by fitting new wiring throughout before suspecting the coil, which is generally the last thing to give any trouble. If all fails then, the only further test you can apply, as you say that the carbureter is in perfect order, is to borrow a new coil and connect it up to see whether this will effect any improvement.

On the Making of Magnetcs.

SEVERAL requests have been made to us to supply all necessary particulars, full details such as the mechanical processes, quantities and gauges of wire, best size of magnets and pole pieces, how to make a contact breaker, etc. We can only say to such enthusiasts that they would not be acting wisely in attempting to make a magneto. Even granted they have the required mechanical skill and necessary patience we can assure them that such a machine would not bear comparison with a standard factory-produced magneto in efficiency, durability or appearance. The making of magnetos has really developed into a fine art, and one might just as well start making a watch as hope to produce a magneto at all comparable with a factory-made machine. The intricate machinery used, the fine castings, gauging devices and a hundred other features of a magneto factory would astound the would-be amateur magneto maker. Besides, it would require one to write a considerable volume on the subject to meet the requirements of the querists asking for details. Really high-class magnetos are by no means expensive, considering the amount of work put into them and costly plants used to produce them, and we are quite sure no amateur could hope to make a workable machine for an appreciably less sum than he could buy one for.

The Use of Kerosene.

THE Standard Oil is sending out circulars to its customers advising them to start their engines on gasoline and when they get hot to use kerosene and then finish with gasoline. How would this work on a motorcycle? GEO. W. TAYLOR.
Milwaukee, Wis.

In the first place, this has been the subject of experiment for many years. There are several carbureters abroad which are specially adapted for use with kerosene. The drawbacks are sticking of the valves, carbonization, clogging of any ordinary carbureter which is not specially designed for kerosene and a somewhat "noticeable" smell from the muffler.

Any spirit above .780 can be put in the class of kerosene and, as you can see, gasoline must be used to start, as kerosene, being a heavier spirit, will not vaporize so readily as gasoline at about .720. The advantages claimed are of course economical running, and added to this experts contend that the heavier spirit gives more complete combustion and consequently more power to the engine impulse.

In reality a special carbureter would have to be employed. However, this question will be dealt with further by the "Veteran," who has actually experimented along these lines.

Proper Specific Gravity of Gas.

CONSTANT READER, Dayton, O.—To test the specific gravity of gasoline you require a densimeter. These can be bought from any accessory dealer or any analytical outfitter at a low price. The specific gravity is of course based on water weight, as it is carelessly termed. Now, the purest gasoline is about .680 and it ranges to .760. In the writer's opinion the .680 is the best to use, but it is hard to obtain this and generally one has to be content with .720 or thereabouts. Some people contend that the heavier spirit makes for more complete combustion but, on the other hand, even if this claim is actually correct, the heavier spirit has a far greater tendency towards carbonization and the sticking up of valves. For further views on this question see our answer to George. W. Taylor's question.

When Riding into Canada.

WE have just received from the Commissioner of Customs of Canada an answer to our recent inquiry regarding conditions under which a motorcyclist may enter that country from the United States. The Canadian Department of Customs has a regulation which provides that motorcycles, ridden into Canada for a brief period for pleasure only, are dealt with as tourists' outfits, upon which it is necessary to make a deposit upon entry equal to the amount of duty which would be chargeable if the machine were actually imported. This deposit will be returned any time within six months, when the machine is taken out of Canada.

GEORGE T. CHAPMAN, JR., Pawling, N. Y.—A battery motorcycle is easier to start, but there is no question as to the reliability of the magneto. In fact, it is very seldom necessary to touch the ignition device of a magneto machine. The matter is largely one of choice, depending in many cases simply upon the willingness of the purchaser to pay the extra price. It is certain in any event that the man who buys a magneto motorcycle gets his money's worth and an assurance of a practical freedom from that sort of trouble.

A. B. Le Massena, Commissioner of Motor Vehicles, 54 Park Place, Newark, N. J., is one of those from whom New Jersey licenses may be obtained. A non-resident's touring license, good for eight days consecutively or for four periods of two days each, may be had for $1.00.

CHARLES C. BOYNTON will on June 1 become general manager for A. R. Mosler & Co., of New York, makers of Spitfire plugs and B.M. carbureters. Mr. Boynton is now buyer for the Excelsior Supply Company, and the vacancy caused by his resignation will be filled by Mr. Grubb.

M. O. I. V. VERSUS A. O. I. V.

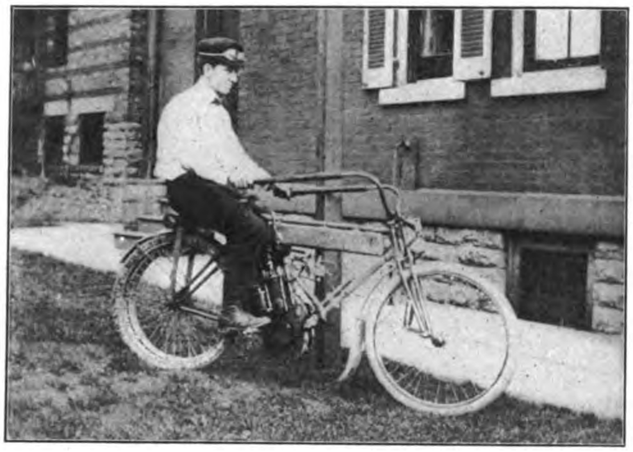
THE automatic valve is held in position by a spring sufficiently strong to seal it properly, but sufficiently flexible that the suction of the intake stroke will draw it open and allow the gas to pass freely through. There has been considerable discussion as to the comparative qualities of the two styles of valves. The automatic valve has materially less parts to be subjected to wear and thereby interfere with the proper timing.

On large engines, such as automobile motors, where the valves must necessarily be of considerable size, the mechanically actuated valve is undeniably preferable, but in small motors this has not always proven the case, at least not invariably in connection with single cylinder engines.

Where the engines have two or more cylinders served through a manifold there are other conditions which make the mechanically actuated valve preferable and of a higher degree of efficiency. It will therefore be found that practically all double-cylinder motorcycle engines are provided with this type of valve.

Favors Rear Saddle Position.

I WISH to give the following account of re-designing a motorcycle, which will be interesting in relation to the discussion as to whether the position of the rider should remain near the middle of the machine or be located at the extreme rear. In this connection, I submit a photograph showing the practical application of my theory, and a few words in this connection may be in order. When I purchased this machine, it had been ridden one year and was in first-class mechanical condition. All bearings were new, tires in fine shape and in every way it was practically as good as a new machine. After riding it about one week I made the following changes: Increased length of handle bars to 18 inches, placing grips in several positions to insure flexibility of handling when desired. Lengthened the seat post to 14 inches, bending it down and back. I also added rear brace fastened to the hubs and placed the seat as far back as it would go. Removed crank and shaft and substituted rigid rod to hold the pedals, thus doing away with the nuisance of having to start the machine by pedaling. Anyone who has tried it will know that it is easier to run along with the machine, hop on the step, then jump into the saddle. The result has been wonderfully satisfactory.



Yours very truly, S. R. PHELPS, M. E.
Cincinnati, O.

A Show in Washington, D. C.

BEGINNING April 11 and concluding on the 16th, a show was held in the national capital under the auspices of the Sportsmen's Association. Motorcycles were well represented, every make sold in Washington with one exception being exhibited. Four R.-S. machines were shown by T. H. Mudd, Jr.; two Merkels, two Lights and one Emblem by H. F. Seamark; two Indians and a Greyhound by Chas. E. Miller & Bro.; two Harley-Davidsons by the Berryman Company; a 3 N. S. U. twin and a single lightweight by the Haverford Cycle Company, and a Yale twin by E. P. Hazelton.

Another Harley-Davidson in Honolulu.

IT was very gratifying to the Harley-Davidson folks to recently learn from Benjamin Sammons, their selling agent in Honolulu, Hawaii, that the city government there had just purchased another of their machines, this one for the inspector of water works. A Harley-Davidson having been used since last fall, this second purchase may be regarded as proof that the municipal authorities are well satisfied.

MAKERS AND SELLERS

IN COMMERCIAL USE IN INDIANAPOLIS.

OF the more than 350 machines registered with the Indiana Secretary of State since January 1, a large number of them have been purchased for commercial purposes. This his been especially true in Indianapolis. The Central Union Telephone Company has purchased three Thor machines, making seven in all, for its linemen, collectors and solicitors. The Indianapolis Telephone Company has bought an additional Yale, while the Indiana Union Telephone and Telegraph Company, at Fowler, has bought a Thor. The American Telephone and Telegraph Company has purchased an Excelsior. Dr. George R. Hays, assistant police surgeon of Indianapolis, has found an M. M. quite satisfactory in his daily practice. Dr. Hays looks after the needs of about 600 policemen and firemen. He is subject to call to any part of the city, night or day, and finds it necessary to have the quickest possible form of transportation possible. He says that his motorcycle has met all of his requirements. The Indianapolis Gas Company has bought two Excelsiors, which are used by its collection and contract departments. Formerly bicycles or horses and buggies were used, but were found expensive as compared with motorcycles. A. B. Meyer & Company, dealers in coal and building materials, are using a Harley-Davidson to land contracts before the other fellow can get on the ground. The Crabb sign painting company has recently purchased a Reading Standard, which it is using to advantage in soliciting business. The Miller Hardware Company is using an Indian in soliciting business and making collections. Locke & Anderson, plumbers and steam and gas fitters, use a Merkel-Light.

Philippine Prospects Bright.

MOTORCYCLES are coming in hapidly here. The F. N. is making the fastest progress, as the agent is pushing it hard. The only trouble is that the F. N. people cannot make deliveries as soon as they should. The English Humber also takes well, as does the 4-cylinder Pierce, and if the machines could be delivered immediately, lots of them would be sold. The Indians and M. M. are the other American machines represented here.

FREDERIC VAN PRAAG.
Bureau of Lands, Bocane, Balacan Prov., Philippines.

A Fine Metropolitan Store.

THIS is a view of the interior of the store of the Frank B. Widmayer Company at 2312 Broadway. The Widmayer show rooms have recently been overhauled, in fact, practically made over, and to those who knew the old place the change is quite a revelation. The Company maintains one of the best repair shops in the East and also a large storehouse, both of which are located just around the corner from the main store.

MAKERS FAVOR PUBLICITY PLAN.

A PLAN to conduct a general publicity campaign in behalf of motorcycling was broached and acted upon at the recent Buffalo meeting of the Manufacturers' Association. In fact, a committee was named for this purpose, with A. B. Coffman, of the Consolidated Manufacturing Company, as its chairman. It is believed that not a little can be done in showing the newspapers the way to give the sport the right kind of advertising in their reading columns. The committees on shows, horse power rating and traffic, respectively, simply reported progress. Those in attendance were George M. Hendee of the Hendee Manufacturing Co.; F. C. Roble, of the Excelsior Supply Co.; Messrs. Van Allen and Overman, of the Greyhound Motor Works; W. H. Ives, of the Reliance Motorcycle Co.; W. G. Shack, of the Emblem Manufacturing Co.; Percy Pierce, of the Pierce Cycle Co., and A. B. Coffman and Mr. Welch, of the Consolidated Manufacturing Co. In the absence of Mr Remppis, who is ill, Mr. Roble acted as secretary.

Warning Against a Swindler.

"WE are in receipt of a letter from the Potter Company, who handle our machines in Syracuse, advising us that there is a swindler going through the country representing himself to be an expert sent out by our company to give various dealers pointers and advice on how to get the best results from their motorcycles, and incidentally making a 'touch' while awaiting an expense check.

"We have never sent out such a representative, and furthermore, the Harley-Davidson Motor Company would not allow any of its representatives to borrow money from its dealers. If it were necessary that they should have money, they can telegraph here to the factory and get it. We are hereby warning the public not to be taken in by this stranger, as he is no representative of our company; if he were, he would have the proper credentials. Anyone making such representations should be held and the police notified.

"Yours very truly,
"HARLEY-DAVIDSON MOTOR CO."

New Chicago Store Sells Indian.

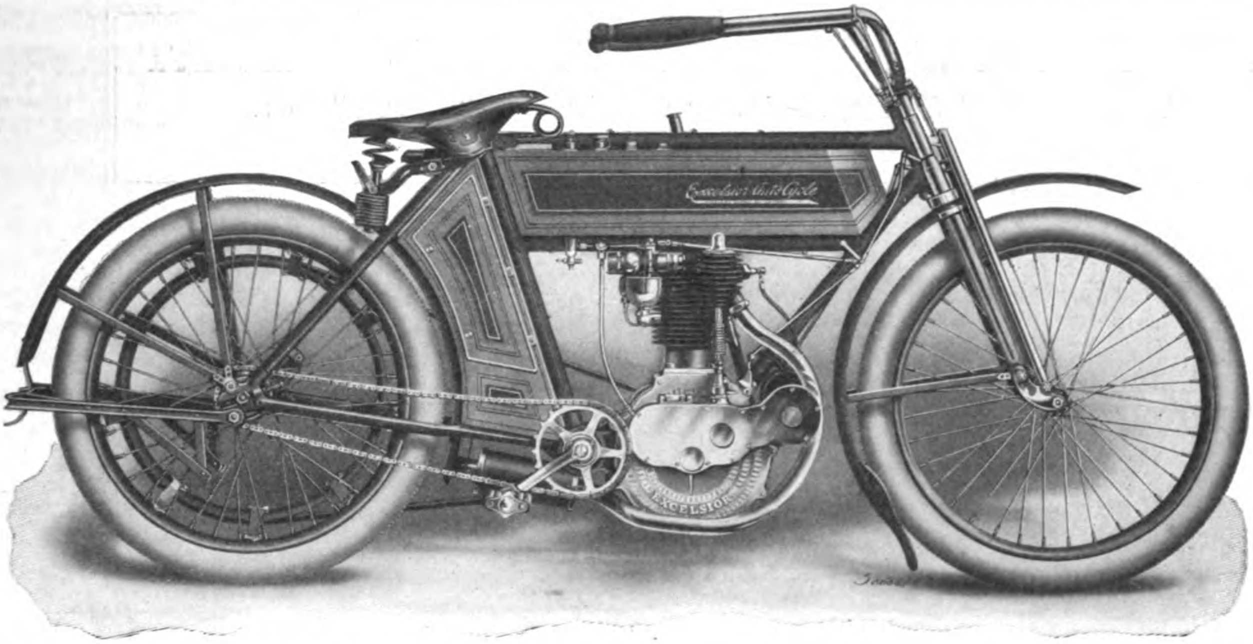
A. KRATOCHVIL, JR., a pioneer in the motorcycle business, has taken over the entire equipment and store formerly owned by George Lyons on Thirty-third boulevard, near South Park, Chicago, for several years a rendezvous for the motorcycle enthusiasts on the South Side. Kratochvil has for a long time been a very enthusiastic rider and has sold many machines during the eight years he has been connected with the trade on the Southwest Side, where he is in business with his father at 3215 West Twenty-sixth street. Kratochvil will handle the Indian.

Herring-Curtiss Prospects Excellent.

AS announced in our April 15th issue, the prospects of an entirely satisfactory straightening out of the affairs of the Herring-Curtiss Company, of Hammondsport, N. Y., which was petitioned into bankruptcy the first of last month, are reported to be remarkably bright. Gilbert Parkhurst, of Bath, N. Y., who was appointed referee in bankruptcy, is of the opinion that after the entanglement has been unraveled the company will be in better shape than ever before. The trouble has been rather one involving differences of policy than anything that could have seriously embarrassed the company's finances.

New American Motor Agencies.

J. J. WEBER, Dorrance, Kan., will sell the M. M. line in that city. Robert O. Rubel, Jr., & Co., of Louisville, Ky., will act as distributors for M. M. machines in the Blue Grass State. The Mason Brazing Co., Holyoke, Mass., have just been appointed as the company's agents for the M. M. line in that vicinity. H. C. Hauser, of Sebeka, Minn., are selling the M. M. in Wadene, Ottertail, Hubbard and Todd Counties, in Minnesota. T. W. Stearn, of Oak Grove, Mo., has also contracted for an agency. E. T. Harrison, of South Tacoma, Wash., will handle these machines in that live city of the Northwest. Moore & Polkinghorn, of Crocker, S. D., now have the State agency for the M. M. line. New representatives are being appointed almost every day.



"THERE IS ALWAYS ONE

By which the others are measured."

When the City of Chicago called for bids on motorcycles for the Police Department, the specifications required that the machines furnished be fully up to the standard of those then in use in the department.

The machines referred to were Excelsiors and the contract for the new machines was awarded to

EXCELSIOR AUTO-CYCLE

THE ONE THAT ALWAYS MAKES GOOD

Is not this a convincing proof of

EXCELSIOR SUPERIORITY?

Think It Over—Then Get Busy

EXCELSIOR SUPPLY COMPANY

ESTABLISHED 1876

233-237 RANDOLPH ST., CHICAGO, ILL.

Eastern Representative
STANLEY T. KELLOGG, 2312 Broadway, New York

Pacific Coast Branch
361-363 Golden Gate Ave., San Francisco, Cal.

A MOTORCYCLE ENGINE TROUBLE CHART

The causes of Stalling, Missing and Loss of "Energy" in a Motorcycle Power Plant

> **NOTE.**
>
> TROUBLES WHICH PERHAPS MIGHT ONLY CAUSE MISFIRING IN A TWIN OR FOUR-CYLINDER MOTORCYCLE MAY RESULT IN THE COMPLETE STALLING OF A SINGLE; THEREFORE, THE USER OF THIS CHART, IN TROUBLE WITH A SINGLE CYLINDER, SHOULD TURN FIRST TO IGNITION AND CARBURETER TROUBLES.

ENGINE TROUBLE. ..

Assuming that the engine has been running well until the trouble develops.

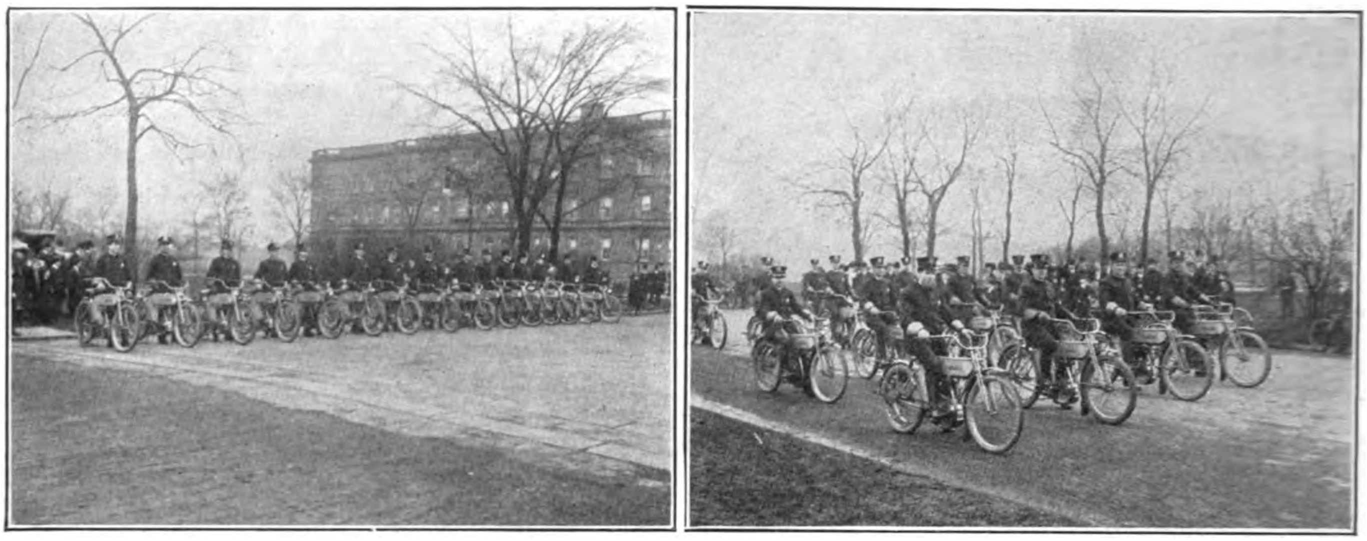
- Engine stalled ....
  - Compression normal ....
    - No spark when contact is made.
      - Ma
      - Bat
    - Strong spark (is gasoline tap open?) ....
      - Ca
      - Tir
  - No compression ....
    - Externally shown causes........
      - Va
      - En
    - Internal causes ....
      - Ti
  - Pulley or sprocket will not revolve; caused by
    - Overheated engine (see external cause above). Also
    - Crank shaft or connecting rod bearing seized.
    - Crank shaft bent or broken.
    - Timing gear jammed or broken.
    - Connecting rod bent or broken.
    - Connecting rod adrift.
    - Piston seized.
    - Flywheel jammed.
- Engine misfiring or very difficult to start.
  - Ignition trouble ....
    - Magneto ignition ....
      - Hi
      - Lo
    - Battery ignition ....
      - We
      - Str
      - Ta
  - Carbureter trouble ....
    - Fuel supply (tank and pipe line)..
      - Ai
      - Fu
      - Fu
      - W
      - Mi
    - Carbureter difficulties ....
      - Mi
      - Va
- Loss of power, though no misfiring.
  - Muffler or pipe obstructed.
  - Weak valve springs.
  - Leaky inlet valve pipe.
  - Mechanical trouble ....
    - Externally apparent ....
      - Va
      - Va
      - Va
      - Mu
      - Cy
    - Internally apparent ....
      - Pi
      - Pi
      - Pi
      - Pi
  - Lubricating failures.
  - Leaking valves.
  - Weak batteries.
  - Valve timing wrong.
  - Worn cams or push rods.
  - Ignition adjustment disturbed or set wrongly.
  - Carbureter adjustment disturbed or set wrongly.
  - Compression lost internally through worn piston rings, etc., or externally by leakage at plug, petcock or valve cap.

- **o ignition**
  - High tension magneto
    - Armature shaft not revolving.
    - Cable to switch short-circuited.
    - Contact points burned, pitted or separated by dirt.
    - Loss of magnetism in field magnets.
    - Insulation in wiring broken down.
    - Contact screw slipped out of adjustment.
    - Contact spring broken.
  - Low tension magneto
    - Switch in off position.
    - Switch plug loose.
    - Connection at switch loose or broken.
- **ignition**
  - Weak battery.
  - Strong battery
    - Multiple coils with vibrators for multicylinders
      - Switch off.
      - Switch plug loose.
      - Connection at switch loose or fractured.
      - Battery ground wire to frame loose or broken.
      - Wire at battery binding posts loose or broken.
      - Wire from battery to coil or switch loose or broken.
      - Insulation on above wire faulty.
      - Contacts burnt away, spring broken, etc.
    - Single coil with vibrator
      - As above, with the addition of:
        - Vibrator points fused, pitted or wrongly adjusted,
        - Vibrator and adjusting screw post short circuited,
        - High tension wire disconnected from coil,
        - Insulation of secondary wiring broken down.
    - Single non-vibrator coil
      - As above, with the addition of:
        - Circuit breaker lever stuck,
        - Contact insufficient in duration.
- **tion**
  - Carbureter flooded
    - Float mechanism stuck.
    - Dirt under float-valve.
    - Float-valve leaking.
    - Float punctured or clogged.
  - Apparently normal fuel level in float chamber
    - Throttle valve disconnected.
    - Air valve stuck or spring weakened.
    - Air vent passage blocked.
    - Spray nozzle blocked.
    - Adjustment level, nozzle and air valve.
  - No fuel in float chamber
    - Tank empty or tank vent blocked.
    - Gasoline tap shut off.
    - Feed pipe broken or blocked.
    - Float mechanism stuck.
- **of spark**
  - Circuit breaker shifted.
  - Timing gears slipped.
  - Magneto gear shifted.
- **not lifting.**
- **overheated**
  - Lubrication failure
    - Run out of oil.
    - Oil feed pipe blocked.
    - Oil frozen (in very cold weather).
  - Engine overheated from other causes.
- **pinion loose, or timing r stripped.**
- **ension magneto**
  - Cable to switch short circuited; examine for faulty insulation, etc.
  - Spark plug fouled or broken.
  - High tension wire disconnected.
  - Plug points set too far apart.
  - Contact-breaker points pitted or dirty.
  - Loss of magnetism in the field magnets.
- **nsion magneto**
  - Make and break faulty, spring broken, etc.
  - Make and break mechanism fouled.
  - Binding post connection loosened.
  - Loss of magnetism in field magnets.
- **battery**
  - Look to voltage and amperage of batteries.
  - Long use.
  - Timer arc of contact too long.
  - Tension on vibrator too great.
- **battery**
  - Multiple coils with vibrators (for multicylinders)
    - Switch plug loose.
    - Spark plug fouled or broken.
    - Spark plug points too far apart.
    - Wire to plug shorted or disconnected.
    - Wire from battery connection or timer to coil broken or disconnected.
    - Vibrator stuck, burned or dirty.
    - Tension on vibrator wrongly adjusted.
    - Coil condenser damaged.
    - Insulation in coil damaged.
  - Single coil with vibrator
    - See above factors.
  - Non-vibrator coils with circuit breaker
    - Above causes, also
      - Circuit breaker worn, dirty or points burned.
      - Circuit breaker spring weakened.
- **early empty.**
- **nt stopped up.**
- **p partly closed.**
- **pe blocked up.**
- **in gasoline.**
- **e too rich**
  - Float valve leaky.
  - Fuel adjustment loose.
  - Air valve clogged.
- **e too weak**
  - Above causes, also
    - Fuel adjustment partly closed,
    - Air valve spring weakened or broken,
    - Air vent to float chamber blocked,
    - Dirt or water in float chamber,
    - Intake pipe leaky.
- **stem or spring broken.**
- **stem bent or gummed.**
- **pring weak.**
- **learance wrong.**
- **or exhaust pipe blocked.**
- **r and valves carbonized.**
- **rings gummed or broken.**
- **ring slots in line.**
- **ead or cylinder wall cracked.**
- **rings and cylinder walls scored.**

HOW TO USE THE CHART.

An example—Suppose your engine stops. Try its compression. If you find that normal, also assuring yourself that spark is strong and properly timed, then the chances are you have carbureter trouble. If you find the carbureter flooded, for example, learn why, remove the cause, and put the Chart safely away for use in another emergency.

LIKE SOLDIERS—CHICAGO POLICE ASTRIDE EXCELSIORS



THE Chicago Police Department, after thoroughly trying out Morgan & Wright tires during the past year on three of their machines, decided from the showing they made to equip the new machines of the entire squad with M. & W. tires this season.

May Follow Motorcycle Belt Practice.

HEARING two motorcyclists talking about the excellence of the "Shoemaker" Standard "V" belts, the master mechanic of one of the largest steel plants in the United States was struck with an idea, the working out of which may change the form of transmission on certain drives in innumerable power plants. If the experiment to be made proves successful the advocates of "V" drives will have another argument to prove their case. This master mechanic, like a great many others, was experiencing difficulty with his generator drive. The new idea of a "V" drive appealed to him. After turning the matter over in his mind, he wrote the Apex Belting Company, Philadelphia, manufacturers of the "Shoemaker" belts, asking their opinion. Mr. Shoemaker, general manager of the Apex Belting Company, immediately called at the steel plant to look over the ground. He saw the idea was feasible, and if properly handled would make an ideal drive. He drew up specifications and immediately made several "V" belts modeled exactly after those used on motorcycles, except that they are longer. The proper pulleys were made. The generator was equipped. The "try out" will take place during the first week in May, and the result is awaited with much interest.

INCORPORATED under the laws of the State of Delaware and capitalized at $1,000,000, the Utility Car Company, which owns the Auto-Tri Manufacturing Company of Buffalo, of which George R. Bidwell is president, has placed on the market $300,000 worth of its common stock. According to the company's prospectus it is its intention to construct and market a commercial tri-car, of which the principal specifications are as follows: Friction drive mechanism, 8 h. single cylinder water-cooled engine with a shaft extending back to the friction gear on the single rear wheel, over which is a small rumble pattern seat. Over the front wheels is a large delivery van, directly back of which is the steering wheel with spark and throttle levers in a quadrant. The machine is designed to sell at $500, and is said to be capable of carrying 300 pounds at 15 miles an hour.

FIRST aid to the injured is contemplated by the General Electric Company of Schenectady through the use of a specially constructed R.-S. motor wagonette. It is the intention of the Schnectady concern to use this machine to convey an emergency kit to any point in its factory where an accident has occurred. The wagonette is to be stationed at the company's emergency hospital and when an employee requires the attention of a physician, the latter, notified by phone, will jump upon his machine and ride to that part of the factory where the accident has occurred. In the kit there will be a full line of hospital supplies.

THROUGH the Lawlor Cycle Co., a Harley-Davidson has been purchased for the Lincoln Police Department. The machine will be used by an officer whose duty it will be to regulate traffic and make would-be automaniacs conform with the requirements of the law.

Lincoln Park Motorcycle Police Squad to Nab Speeders.

CHICAGO—Captain Shaw, of the Lincoln Park Police Department, has established a motorcycle squad in the park for the purpose of forcing motorists to observe the speed limits. These motorcycle policemen are instructed to gather in all violators of the law. They are equipped with double-cylinder Indians. While in the past Captain Shaw has enforced the speed law to very good advantage, he finds that the Indians are going to be the real proposition for catching all speeders.

Lieutenant Charles Schoren, who has charge of the squad, is very enthusiastic over his new Indian. The boys composing the squad are inclined to see how fast they can run these machines when the lieutenant isn't looking. They are beginning to realize that there is always more temptation to speed up an automobile or a motorcycle than they had any idea of, previous to riding motorcycles themselves.

A CHANGE has been made in Greater New York by the Greyhound Motor Company. Hereafter Greyhounds will be sold in the metropolitan district by the Abbott-Detroit Sales Company, 1521 Bedford avenue, Brooklyn.

INCORPORATED under the laws of the State of New York and capitalized at $250,000, the C. W. Kelsey Manufacturing Company has been organized in this city to deal in bicycles, motorcycles and other motor vehicles and parts.

THE staff of the Badger Brass Mfg. Co. of Kenosha, Wisconsin, now includes Mr. Ezra E. Kirk, for many years identined with the Consolidated Mfg. Co.

Lincoln Park Motorcycle Squad.

THE FLYING MERKEL

BREAKS ALL WORLD'S RECORDS

50 miles in 40 minutes—
that's going some! plus!!

On the new mile board track at Playa del Rey, near Los Angeles, F. E. Whittler on The Flying Merkel on April 10th broke every world's record, from 17 to 50 miles inclusive.

Time: 50 miles—40 minutes, 13 seconds. This was faster, by 8 minutes and 8 seconds, than the previous world's professional record and also breaks the world's amateur record by 1 minute, $36\frac{3}{5}$ seconds.

Whittler made the 30th mile in the remarkable time of $44\frac{2}{5}$ seconds.

Just another instance of The Flying Merkel's speed and endurance. Our Catalog B will give you full information about the machine that is making the motorcycle world sit up and take notice.

Merkel-Light Motor Co.
POTTSTOWN, PENNSYLVANIA
MEMBERS OF M.M.A.

MOTORCYCLE MART

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word; two or more times, three cents per word each insertion. No advertisement for less than fifty cents. Cash with order, always.

ANOTHER DEMONSTRATION OF QUICK RESULTS

"Editor Motorcycle Illustrated:

"Talk about quick and efficient advertising mediums! Last week I sent you a thirty-word 'ad.' to appear in the Mart of the issue of March 15th. I don't know what time of the day Motorcycle Illustrated appeared, but at 3.30 p. m. (three hours after the paper was off the press) my machine was sold, delivered and paid for. By investing a dollar in a Mart ad. I sold my machine for $35 more than an agent had offered me IN EXCHANGE, and on the very day of the appearance of the advertisement!

"I guess that's going some.

"New York, March 16, 1910." Very sincerely yours, "Livingston Fountain.

"P. S.—Last year I spent $5.85 in advertising the SAME MACHINE in the newspapers, and failed to sell it."

FOR SALE OR EXCHANGE

FOR SALE—Motorcycle supplies, guns, cameras, etc., at twenty-five per cent. discount until May 30. Walter Harrington, Carthage, Mo.

FOR SALE—1910 Indian 5 h. p. Twin, brand new, never used; first draft $247 gets it. Maplewood Kennels, Carthage, Mo.

FOR SALE—1909 M. M. magneto special 3½ h. p.; never been used on the road; only used for demonstration in store, $175. Address M. M. Magneto, care of Motorcycle Illustrated.

FOR SALE—A bargain, Royal Pioneer demonstrator, best offer. C. V. Wellman, Binghamton, N. Y.

FOR SALE—Nearly new 1908 Twin Indian, magneto ignition; extras, chain, luggage carrier, horn, lamp, tools, $130. Harry Mathers, Carlisle, Ky.

WANTED—Side car. Address, W. L. Hooker, North East, Pa.

FOR EXCHANGE—1907 2¼ h. p. R-S and shaft drive runabout less motor. Exchange both for good 7 h. p. motorcycle. J. Eblen, Ridgedale, Tenn.

FOR SALE—1909 Indian, loop frame, V belt drive, Bosch magneto, 3½ h. p. 28 x 2½ tires. Has been run 243 miles. Price, $150, if taken soon. Claude Warner, Argos, Ind.

FOR SALE—Motorcycle, $78. Harry Ridgway, 1505 Rowan street, Louisville, Ky.

FOR SALE—1910 twin Indian, 5 h.p.; brand new; never used; need money badly; $225 cash, crated, f. o. b. Erie. "Motorcycle," South Erie Station, Erie, Pa.

WILL SACRIFICE my 1910 Twin Thor $45 less than cost. Will arrive May 1. G. H. W., Room 18, McCurdy Block, Canton, Ohio.

WRITE for description, photo and price of an Indian Twin, almost brand new in every respect. A snap for quick sale. "Snap," care of Motorcycle Illustrated.

FOR SALE—1909 twin cylinder 5 h. p. chain drive Indian. Extras: B. & C. two speed transmission, Prest-O-Lite tank and lamp. Price $210. Excellent condition. Frank Runyan, Jewell, Kans.

GRIFFON MOTORCYCLES and parts, 2¾ h., $150; 3½ h., $200; 5 h., $250. Call or write for appointment to see same. G. V. Cochrane, 2 W. 125th street, New York City.

FOR SALE.—Five horse twin Indian, diamond frame, with magneto fan for cooling cylinder; extra auxiliary gasoline tank and tandem attachment, all in good shape. Cost $325; will sell for $140. W. E. Shulenberger, Salisbury, N. C.

FOR SALE.—Seven h. p. chain-driven '09 model Indian motorcycle. Tires and nickel plate in fine condition; equipped with B. & C. two-speed clutch. Guaranteed in good running order. A bargain at $210.00. Geo. H. Mills, Shreveport, La., care Ardis & Co.

WANTED AT ONCE

Motorcycle Assemblers and Testers. Good Salaries Paid to the Right Men. Address

READING STANDARD CO., READING, PA.

MISCELLANEOUS

WANTED—Capital to manufacture up-to-date motorcycle and aeroplane engines; by a mechanic who has made a thorough study of the foreign practice in light engine construction, and who has had unlimited experience in motorcycle and automobile manufacture. For particulars address "Capital," care Motorcycle Illustrated.

AGENTS CARDS, ETC.

ARE you wanting an English motorcycle? You know they want a lot of whacking. We shall be pleased to quote you for a machine delivered duty free upon request. Maudes Motor Mart, 136 Great Portland street, London W, also at Powell street, Halifax, England.

WANTED—Motorcyclists to know that we carry a full line of spare parts for "CURTISS," "ROYAL PIONEER," "R.-S.," and "INDIAN" Motorcycles; as well as the best variety of highest accessories manufactured. Reliable repairing done on the premises. Tiger Cycle Works Co., 782 Eighth Avenue, New York. 'Phone, 1268 Bryant.

MOTORCYCLES thoroughly overhauled and repaired; agents for Thor and Excelsior motorcycles; supplies and sundries. Brazenor & Ruderman, 1041 Bedford avenue, Brooklyn, N. Y.

SECOND-HAND M. M. BARGAINS—Exhaust Whistles, Hand Idlers. M. M. Branch, 895 Main street, Buffalo, N. Y.

SECOND HAND BARGAINS.—Any make of motorcycle; all machines in good condition. Parris, 2208 N. Broad street, Philadelphia, Pa.

IF IT IS a second-hand machine you want, write to A. D. Cook, 111 Monroe avenue, Rochester, N. Y.; Curtiss Agency.

BARGAINS in accessories. Always on top. We have the largest stock and lowest prices in America. Write today for catalogue. Motorcycle Equipment Co., Hammondsport, N. Y.

FOR SALE—The only motorcycle and supply house in a city of 400,000 inhabitants located in the Middle West. Doing excellent business. Will sell at invoice. Good reason for selling. Address J. S., care of Motorcycle Publishing Co.

WANTED.—A Live Agent for Tourist Two-Speed Motorcycle,

and K. & R. two-speed gear. No pedals; starts with a crank. Can be applied to any BELT-DRIVEN motorcycle. For information address Post Motor Agency, New Canaan, Conn.

GRINNELL GLOVES

Are Best for Motorcyclists

They are decidedly classy; keep out all dust; are so soft that delicate adjustments can be made with them on; when soiled are washable; wear like steel.

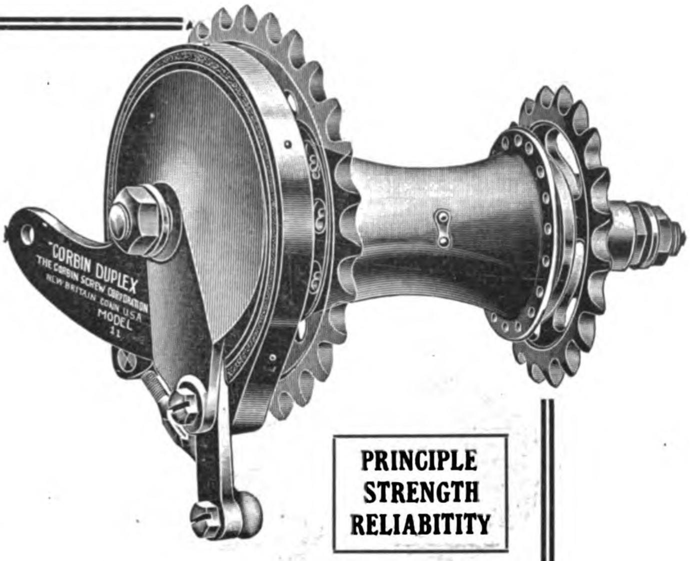
The "**Rist-Fit**" allows the gloves to be drawn snugly at the wrist, keeping the gauntlet from sagging down over hands. The ventilated back keeps the hands cool in hottest weather. See **Grinnell Gloves** at your dealer's. If he doesn't handle them write for pair on approval. Send for samples of leather and illustrated booklet.

Morrison-Ricker Mfg. Co.
27 Broad St. Grinnell, Ia.

Originators and Patentees of Ventilated and "Rist-Fit" Gloves

Security on a Motorcycle

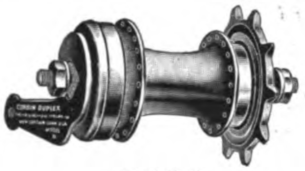
IS ASSURED WHEN A



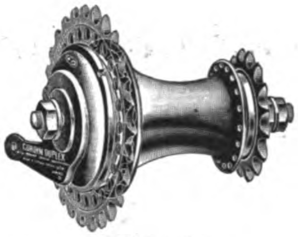
PRINCIPLE
STRENGTH
RELIABITITY

Corbin
BAND BRAKE

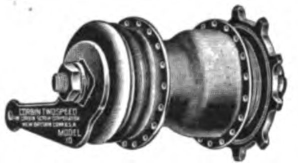
Is Part of Your Machine's Equipment



MODEL 8.



MODEL 9.



MODEL 10.

For Either Belt or Chain Driven Machines,

The Success of the **CORBIN BRAKE** Has Been Demonstrated to the Satisfaction of Thousands.

AGENTS AND RIDERS

Handle and Use a Brake Whose Efficiency is Universally Acknowledged. Quotations on Request.

THE CORBIN SCREW CORPORATION

LICENSED COASTER BRAKE MANUFACTURERS

THE CORBIN SCREW CORPORATION OF CHICAGO, 107-109 Lake Street, Chicago, Ill.
NEW BRITAIN, CONN., U.S.A.

WAREHOUSES

106, 108, 110 Lafayette Street, New York
Northwest Corner Eighth and Arch Streets, Philadelphia, Pa.

The Superiority

of

G & J TIRES

has been so frequently demonstrated that it has now become an axiom with all riders of national reputation. They won't take chances on anything else. The further fact that

all the leading motorcycle manufacturers of the country specify G & J Tires

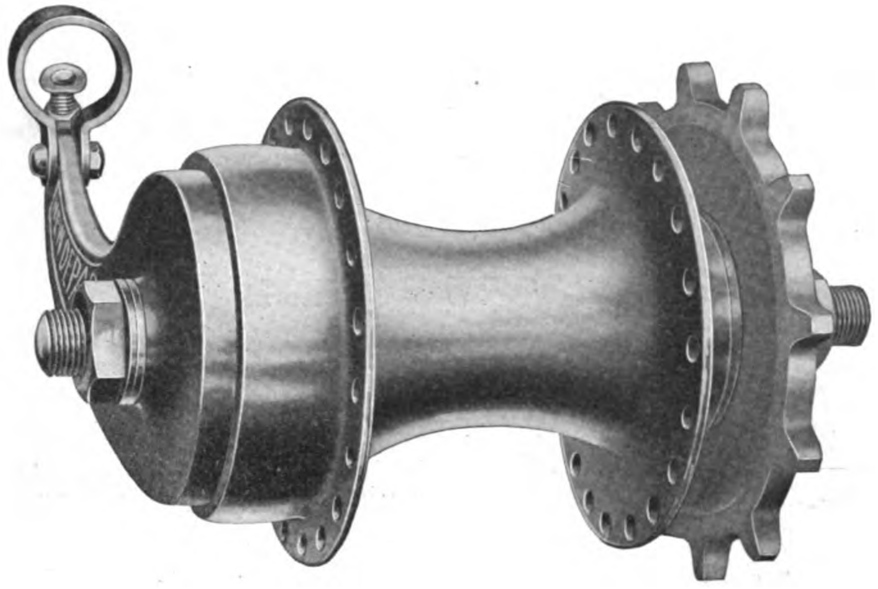
as their standard equipment will convince you that the Indianapolis G & J Motorcycle Tire is the

unquestioned leader in the world of motorcycling.

You cannot get anything better.

Send for our illustrated booklet.

G & J TIRE COMPANY, Indianapolis, Ind.

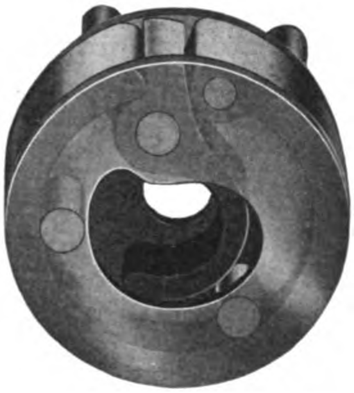


NEW NEW DEPARTURE

Internal Expanding Band Coaster Brake for Motorcycles is

Band Brake and Lever

POWERFUL
PRACTICAL
POSITIVE



Band Brake showing top plates holding parts in position—transparent view

The New Departure is the last word is coaster brakes for 1910 motorcycles. Radical improvements have been made, bringing it abreast of motorcycle advancement. It is dependable under all circumstances, strong enough to stall the highest powered motors; cannot bind, lock, "feed up" the pedals or cut into the hub. Every test proves claims made for it and every user declares its unfailing efficiency.

When asking your dealer about the "NEW" New Departure, do not fail to tell him you want to see the internal expanding band coaster brake.

Write for Folder

THE NEW DEPARTURE MFG. CO.

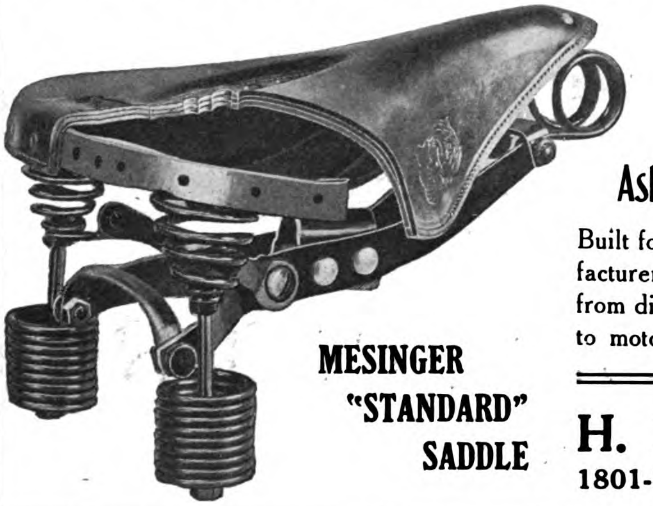
Coast Brake Licensors **BRISTOL, CONN.**

When you strike rough road you feel the difference. Ask any rider the facts about

MESINGER

"CAVALRY" and "STANDARD" MOTORCYCLE SADDLES

MESINGER "CAVALRY" SADDLE



MESINGER "STANDARD" SADDLE

Ask What The Patented Shock Absorbers Do

Built for COMFORT, tested and approved by many manufacturers of motorcycles. They save the rider and machine from disagreeable jolts, prevent side-sway and add pleasure to motorcycling.

H. F. MESINGER MFG. CO.
1801-1807 First Avenue, - NEW YORK

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New World's Records Made by Bosch-Equipped Merkel

Fred. E. Whittler riding a Bosch Equipped Merkel-Light of 7 H. P. at Los Angeles, broke all professional records from 17 miles to 50, and from 23 to 50 miles broke all the old World's Records. The new records are:

New Professional Records:

Miles.	Whittler's Time.	Old Record.	Beat Record By
17	13:40	13:42	0:02
18	14.28	14:30⅖	0:02⅖
19	15:16⅕	15:19⅖	0:03⅕
20	16:05	16:08⅗	0:03⅗
21	16:53⅕	16:57⅕	0:04
22	17:41	17:45⅗	0:04⅗

New World and Professional Records:

Miles.	Whittler's Time.	Old Record.	Beat Record By
23	18:28⅗	18:34⅖	0:05⅘
24	19:17⅕	19:24⅖	0:07⅕
25	20:04⅖	20:13⅖	0:09
30	24:00⅘	29:41	5:40⅕
35	28:03	35:23⅖	7:20⅖
40	32:05	38:55⅘	6:50⅘
45	36:08	43:29	9:21
50	40:13	48:21	8:08

The old professional records were made by De Rosier, and the world's records by the amateur Fred. Huyck who rode Bosch-Equipped Indians.

***You* may not race or go after records but want as reliable and efficient Ignition as the racers.**

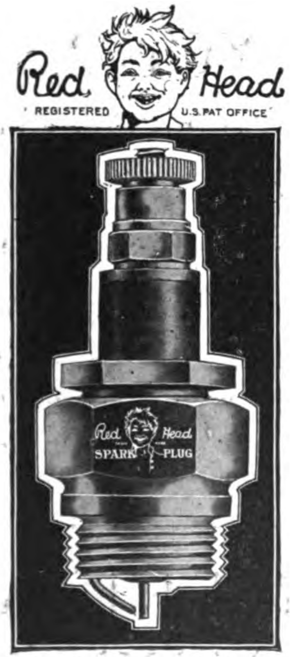
SPECIFY BOSCH WHEN YOU BUY A MOTORCYCLE

BOSCH MAGNETO COMPANY

223-225 WEST 46th STREET, NEW YORK

CHICAGO BRANCH	SAN FRANCISCO BRANCH	DETROIT BRANCH
1253 MICHIGAN AVE.	357 VAN NESS AVENUE	870 WOODWARD AVE

"Let the Red Head Do Your Sparking"



Metric Mica, $1.00

RED HEAD SPARK PLUGS

are on the market barely a year.

They are already being used by thousands of motorcycle riders—

They have proven their superiority over all other makes on the road and in the laboratory—

They have been adopted by manufacturers as exclusive equipment—

And they have stood the GREATEST TEST OF ALL—THE TEST OF TIME.

That's enough to convince any reasonable man.

EMIL GROSSMAN CO., MFRS., 232 West 58th Street NEW YORK

BRANCHES:
Chicago, 1436 Michigan Ave.
Detroit, 874 Woodward Ave.
Pacific Coast, Pacific Sales Corp., 50 Van Ness Ave., San Francisco.

The QUALITY MOTORCYCLE SADDLES That TROXEL Makes

YOUR MOUNT WILL NOT BE COMPLETE WITHOUT THEM

TROXEL EAGLE MOTOR SADDLE
Length, 13¼ inches Width, 12 inches

EASE
AND
COMFORT
Serviceable
AND
Handsome

Troxel New Wood Base Motor Saddle
Length, 14½ inches Width, 12½ inches

That they are the *best* on the market remains an undisputed fact. We invite comparisons. Why not have the best. Write for Catalog and guarantee to

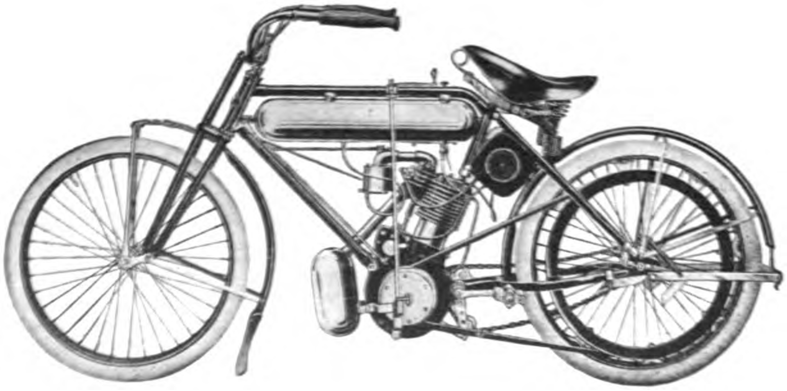
THE TROXEL MFG. CO., Elyria, Ohio

DOES IMMEDIATE DELIVERY

MEAN ANYTHING TO YOU?

After you have worked up that order and secured the customer's deposit, why lose it to another Agent?

HANDLE THE M. M. LINE AND GET PROMPT DELIVERIES

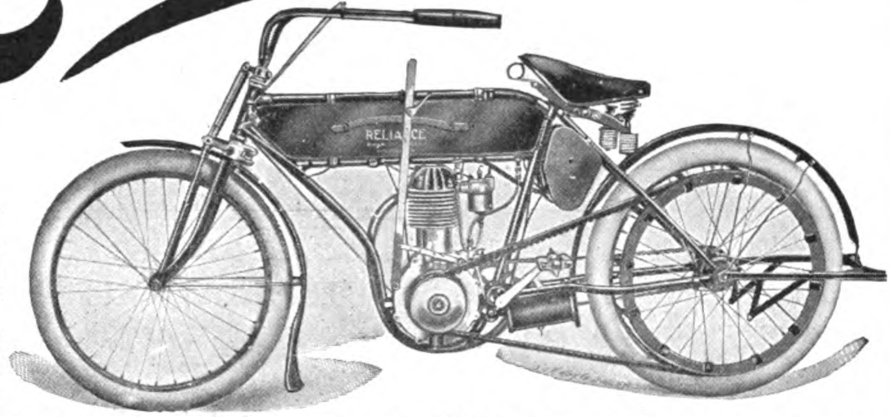


M. M. BATTERY SPECIAL

The M. M. Battery Special, with free engine clutch at $200.00 is the machine that appeals to the practical rider.

AMERICAN MOTOR CO.

Reliance



A COUPLE OF FEATURES:

Truss **SPRING** Fork, the most flexible and enduring made.

Two-Speed and Free Engine Transmission Gear, the **FIRST** practical, compact arrangement made. Largest Clutch, Largest Gears and Largest Wearing Surfaces. One lever control.

With this transmission the rider can start from standstill on the steepest hill. An absolute necessity for the construction of the perfect motorcycle. Full details in our catalogue, let us send you one.

RELIANCE MOTORCYCLE CO., (MEMBER M. M. A.) OWEGO, N. Y.

Morgan & Wright Motorcycle Tires

Made a Noteworthy Record in the

New York Motorcycle Club Quarterly Trials

Ten Machines started equipped with Morgan & Wright Tires.

Seven of these finished with perfect scores—(there were fourteen perfect scores made in all.)

Notice that—

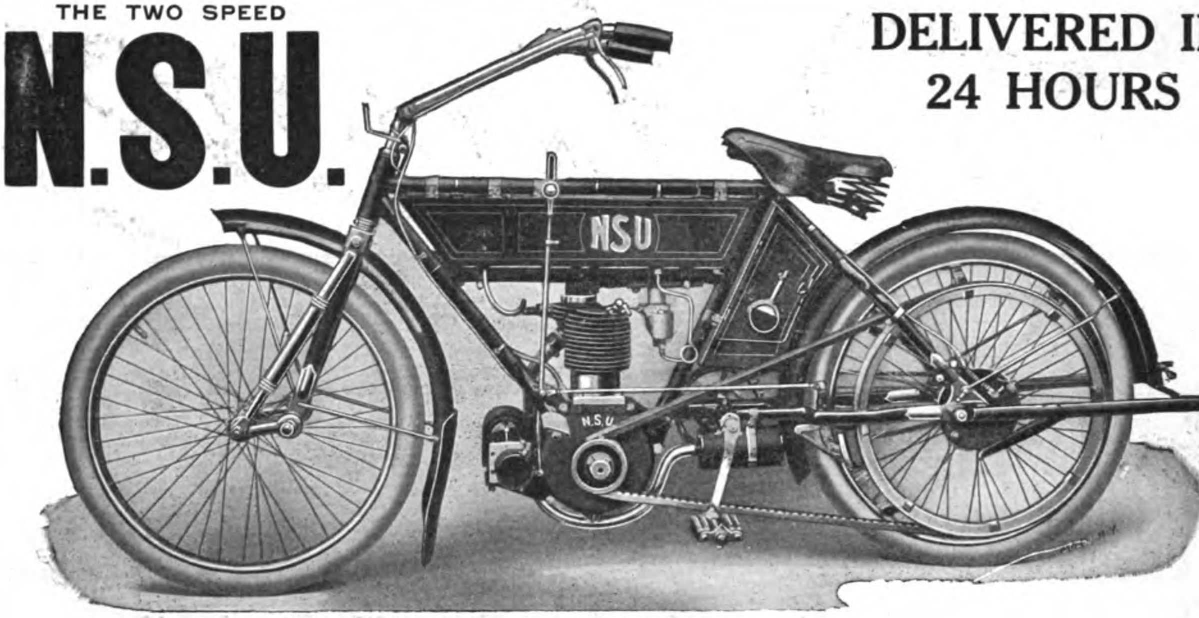
Fifty per cent. of the total number of perfect scores were made on Morgan & Wright Tires.

Seventy per cent. of the riders starting on Morgan & Wright Tires finished with perfect scores..

At the Los Angeles track March 20th, Morgan & Wright Tires won the four mile open professional, the eight mile open professional, the twenty mile open professional and the ten mile amateur races.

THE TWO SPEED

N.S.U.



DELIVERED IN 24 HOURS

AFTER you have considered that HIGHEST QUALITY is the cheapest in the end.
AFTER you have considered that a Pedalling or Pushing Start is obsolete.

Send an order for a TWO SPEED N. S. U. No exertion to start, no hills to steep—just put your weight on the Pedal and Glide Away. Catalog "M" tells you all.

N. S. U. MOTOR CO. Members M. M. A. **206 West 76th St., New York City**

"RIDERS CAN JUDGE"
of

THE GOODRICH WHITE HEAVY TREAD MOTORCYCLE TIRE

Manufactured by THE B. F. GOODRICH CO., Akron, Ohio

Fidelity Fire Insurance Company of New York

ARTHUR J. VINE, Agent,
LAKE LINDEN, MICH.

46 Cedar Street, New York
WESTERN DEPARTMENT
280 La Salle Street, Chicago, Ills.

The B. F. Goodrich Company,
Akron, Ohio.

Lake Linden, Mich., March 17, 1910.

Gentlemen:—

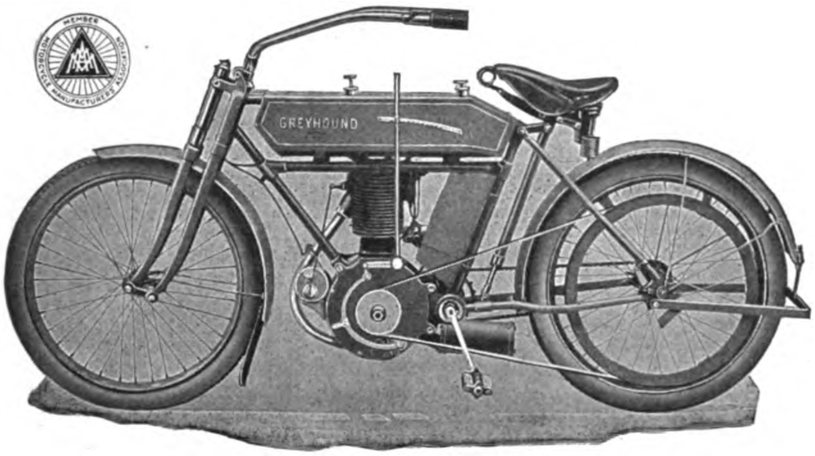
After riding many makes of motorcycle tires, causing me a great deal of expense for repairs and worry while riding them, I received your magazine "The Clincher." While looking over same, I noticed what you said in regard to your Goodrich White Tread motorcycle tires. I immediately sent for one for my back wheel and must say it came the nearest to a puncture and wear-proof tire of any I have ever seen. I rode it about 4,000 miles last summer and a great deal this winter and received only one puncture and it now looks practically the same as new. This is remarkable considering the rough, rocky roads in this Northern country.

If the Goodrich White Tread is anything in the future as it was in the past, it will be the only tire for me.

Yours Truly,

A. J. VINE.

THE SPLENDID GREYHOUND



is jumping to the front, quite naturally. A motorcycle so excellent as this will not fail of appreciation and now that they are being shipped in quantity, they are breeding new business wherever they go. Design, material, workmanship—all fine. Comfort equipment, unequalled in all the wide world. Find out about them if you want the best motorcycle to sell or to ride. Catalog free.

GREYHOUND MOTOR WORKS

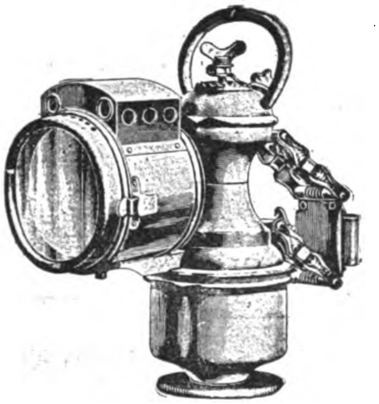
1459 Niagara St., Buffalo, N. Y.

SALES AGENTS: Metropolitan District—ABBOTT-DETROIT SALES CO., 1521 Bedford Ave., Brooklyn, N. Y. Illinois, Indiana and Wisconsin—WHIPPLE, "The Motorcycle Man," 928 Jackson Blvd., Chicago, Ill. California—GEORGE E. HENGERER, San Gabriel, Cal.

Mr. Dealer! Our Goods Will Help To Increase Your Business

They will make friends for you. Motorcyclists who know that you handle our line will frequent your place to see the new goods. We are the largest importers of motorcycle accessories in this country and the first to import new novelties. You have no idea how much difference our goods will make on your trade. Suppose you write for our trade discounts.

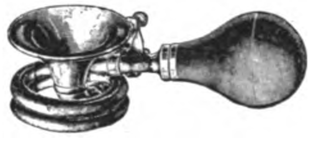
COMBINED LAMP AND GENERATOR



A combination of lamp and generator that is better than any ever devised for motorcycles. Lamp has a mangin mirror lens that projects a powerful light. Generator is very simple in operation. Complete outfit weighs only 23 ounces. Bracket on any motorcycle will fit it. Supplied in nickel only.

No. 88, Price, - - - - - $5.00

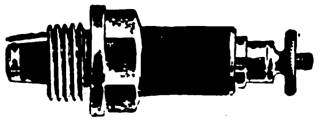
TRIPLE TWIST FROG HORN



Used mostly on motorcycles, runabouts, and on rear of tonneaus. Triple-twist construction produces a deep penetrating tone. Supplied in nickel or brass.

No. 10, Bell 3¼ Ins., Price, - $2.25
No. 11, Bell 4 Ins., Price, - 3.00

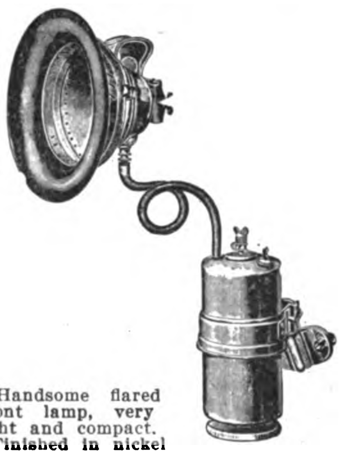
MICA MOTORCYCLE PLUG



Constructed from amber mica, with composition platinum points, ensuring positive spark.

No. 160, ½ Inch and Metric, Price, 75c.

MOTORCYCLE LAMP SETS



Handsome flared front lamp, very light and compact. Finished in nickel and with nickel fittings. Interior of lamp highly polished, projecting a brilliant light. Generators are very simple in operation.

Set 55A and 55B Lamp 5 ins. diameter, 4½ ins. depth, and generator height 5½ ins., diameter 2½ ins.

Price, Complete, - - - $6.50

SEND FOR OUR NEW CATALOG AND TRADE LIST

THE MOTOR CAR EQUIPMENT CO., 55 Warren St., New York, N. Y. Wholesalers, Importers and Manufacturers

"THE PROOF OF THE PUDDING IS IN THE EATING"

READ THIS

W. E. DEWEY, Mgr.

Agent for the Reading Standard

OMAHA MOTORCYCLE CO.

D. D. WALLACE, Prop.

Second-Hand Motorcycles All Makes

Motorcycle Repairing **Sporting Goods**

Brazing a Specialty

1620 Capitol Avenue

Reading Standard Company, Reading, Pa.

Omaha, Neb., March 26, 1910.

Gentlemen: Received Model "5" O. K., and it is the greatest machine I have ever ridden on. The engine has as much power as most of the other 4 HP machines. It has made a bigger hit than any other machine here this year. We expect to get a great many orders off of this machine within the next week or so. I think myself that this machine is big enough for any one. I have put it to test; we are living in very hilly country here. There is a hill here everybody tests new machines on, and I have seen a good many machines with good repair men on them this year fail to make this hill. This Model "5" made it yesterday with 375 lbs. on it—two good men, one weighing 230 lbs. and the other 145 lbs.; that is what we consider a great machine.

Everyone who has ridden this machine thinks it is a 4 HP; when we tell them it is only 3 HP they look greatly surprised.

We are in hopes you will be able to deliver this Model "5" promptly, for while the 4 HP may be the biggest seller in other parts we think perhaps we had better push Model "5" so we can get them.

We remain, yours truly,

W. E. DEWEY, Manager.

R-S Motorcycles Best

If Such Motorcycles Interest You Write To-day

Reading Standard Co.

Bingaman and Water Sts.
READING, PA.

1910 PITTSFIELD 1910

SPARK COILS, SPARK PLUGS, SWITCHES, TIMERS AND DISTRIBUTERS AND MAGNETOS

MADE IN AMERICA ***HAVE NO SUPERIOR IN THE MARKET***

Magneto Spark Plug

The following testimonial was recently received by the Pittsfield Spark Coil Co., unsolicited.

"Columbus, Ohio, Oct. 11th, 1909.

"PITTSFIELD SPARK COIL CO.,
"Dalton, Mass.

"Gentlemen:—

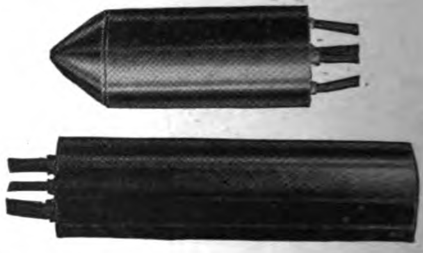
"I think you will be interested to know I am using the **best** coil **"PITTSFIELD,"** on my run from San Francisco to New Orleans and New York.

"I have covered 5,763 miles, 2,022 on railroad cross ties, and have had a terrible trip. Have been out thirty-seven days and had no ignition trouble. Your coil has stood unreasonable endurance, exposed to water, heat and cold in many States.

"I am an old-time rider and one who knows a good thing.

"Yours truly.
(Signed) "H. F. MERIWEATHER."

A Line of Pittsfield Goods is carried by H. V. Greenwood, 166 Lake Street, Chicago



Write today for particulars, catalogues, price lists and instructions.

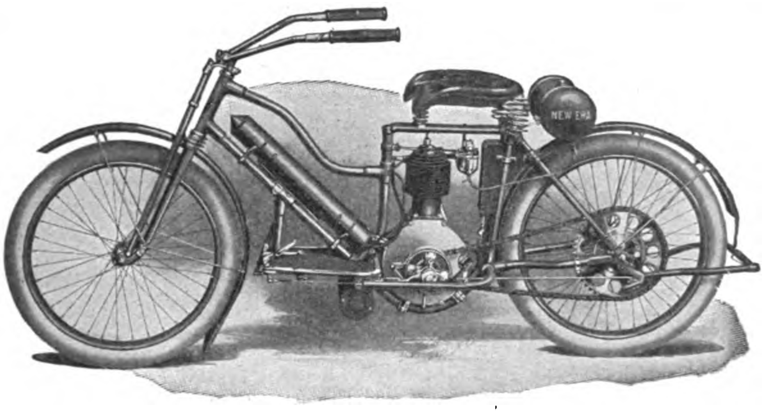
PITTSFIELD SPARK COIL CO., Flansbury Ave., Dalton, Mass.

Sales Representatives: New England, W. J. Connell, 36 Columbus Avenue, Boston. **Atlantic States,** Thomas J. Wetzel, 17 West 42nd Street, New York. **Central States,** K. Franklin Peterson, H. V. Greenwood, 166 Lake Street, Chicago **Michigan,** L. D. Bolton, 319 Hammond Building, Detroit. **Pacific Coast,** The Laugenour Co., San Francisco.

Kindly always mention the paper when writing to advertisers.

NEW ERA AUTO-CYCLE

IT'S THE HAPPIEST COMBINATION OF COMFORT-SAFETY-SPEED-DURABILITY AND FUEL ECONOMY



Patent Pending.

DON'T mistake it for an ordinary motor-cycle—it's extraordinary: The only two-wheel Automobile on the market—the only motor-cycle without pedals, without the old-fashioned saddle, without vibration, without work. WHY? HOW? It's motor—an air-cooled 3½ and 5 H. P. single cylinder—is started by means of a crank, like an Auto—in a few seconds, without pedaling.

NO SADDLE SORENESS EITHER

For the form seat—leather upholstered, and the position of it, between the wheels—prevents it. The foot-board helps lots. No hill too high, no street too crowded for the New Era with its two-speed transmission, which makes the rider the master over every emergency. Our catalogue tells the rest. Shall we send it?

THE QUESTION REMAINS: DO YOU WANT A "NEW ERA" AGENCY?

Write us today

THE NEW ERA AUTO-CYCLE CO.

No. 22 Dale Avenue DAYTON, O.

The Best and Cheapest Light for Motorcycles

You probably know that the Prest-O-Lite Gas Tank is the standard equipment for automobiles.

Why? Simply because it has proven more dependable, more efficient, and more economical than any other lighting system.

It has precisely the same claims on the motorcyclist. Its first cost ($10) is not alarming, when you remember that a Prest-O-Lite tank never gets to be second-hand. It is always in demand—always saleable for about what you put into it.

PREST-O-LITE Gas Tank

Floods the road far ahead with strong, steady light, turned on and off like a gas jet. Each tank gives over 80 hours of light (using a ⅛-ft. burner). A full tank, in exchange for an empty, costs only 60c.

Prest-O-Lite is the best and cheapest accident insurance you can carry. Feeble, uncertain lamps expose the rider to constant risk. One accident due to poor light would cost more than a year's supply of the Prest-O-Lite.

Our Prest-O-Lite Motorcycle tank is a foot long, 4 inches diameter, and weighs (when full) only 7 pounds. Convenient to attach and carry.

If your dealer cannot supply you, write us.

The Prest-O-Lite Co., **246 East South St., Indianapolis, Ind.**

Branches at New York, Boston, Philadelphia, Pittsburg, Cleveland, Chicago, Detroit, Providence, Minneapolis, Omaha, Dallas, Los Angeles and San Francisco.

The Neverout

TRADE MARK

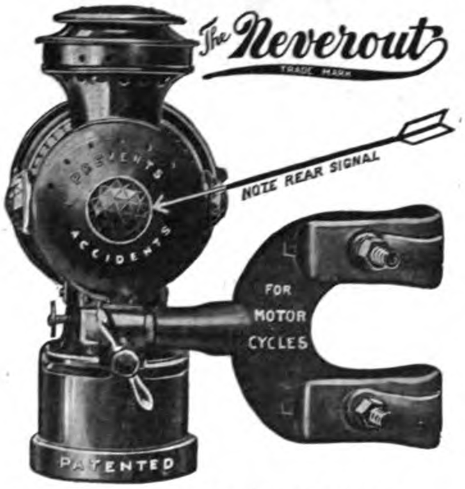
MOTORCYCLE OIL LAMP

SHOWING A RED REAR LIGHT

¶ The Neverout burns kerosene ten hours with one filling, and will stay lighted under any and all conditions. ¶ All riveted—will not rattle apart over roughest roads.

¶ Made in gun metal, brass or nickel finish

AN OIL LAMP THAT MAKES MORE LIGHT THAN MOST GAS LAMPS



Lamp Weighs Only 12½ Ounces

GUARANTEED TO STAY LIGHTED OR MONEY REFUNDED

¶ The Neverout is equipped with a PATENT GLASS COVERED REFLECTOR OF GERMAN SILVER, instantly removable, never loses its original brilliancy.

¶ The only perfect and reliable motorcycle lamp made.

¶ Double clamp bracket furnished, fastens lamp securely to fork of motorcycle. No danger of shaking off, and SHOWS RED REAR DANGER SIGNAL.

Sold by leading jobbers and dealers everywhere

ROSE MANUFACTURING COMPANY

933 ARCH STREET, PHILADELPHIA, U. S. A.

The Neverout complies with the laws of the various States and Municipalities

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Wagner

MOTOR CYCLES

STANDARD
OF
MOTORCYCLE PERFECTION

PERFECT DESIGN
MATERIAL
WORKMANSHIP

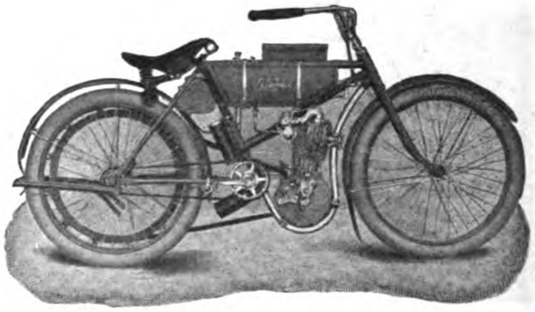
MAKE FOR

PERFECT SATISFACTION

The Wagner *TWIN* Shock-Absorbing Fork and Diamond-Loop Frame are *Exclusive* features and worthy of your careful investigation.

OUR CATALOG EXPLAINS.

IMMEDIATE DELIVERIES



WAGNER MOTORCYCLE CO.

ST. PAUL, MINN.

Distributors

So. States Motorcycle Co., Atlanta, Ga.
C. M. Frink, Los Angeles, Cal.
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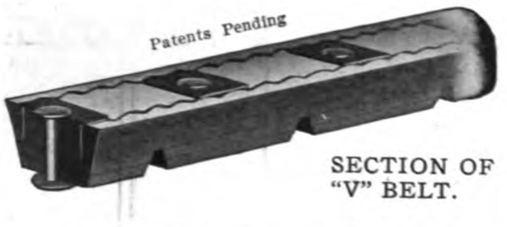

SECTION OF
"V" BELT.

READ THIS RIDER'S ENDORSEMENT

of these belts. Good, straight, unsolicited confirmation of what we have been claiming all along—"that these are the **only** belts that will positively give satisfaction in **every** way." But read:

Philadelphia, Pa., April 15, 1910.
Apex Belting Co.,
240 Chestnut St., Phila., Pa.

Gentlemen: Your belt is all that you claim it to be—and more. I have been riding a Motorcycle for several years and have had more trouble with belts than with any other part of the machine. Since putting on your make I have had absolutely no trouble. To every rider I meet I am recommending your belt. Yours truly,
ISRAEL DICK.

He refers, of course, to the

SHOEMAKER STANDARD MOTORCYCLE BELTS

("V" Shape or Flat)

Now wouldn't you like to have that sort of belt on your machine? You can. If you are ordering a new machine **specify** the Shoemaker belt. If you already ride, order direct from the makers, the

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SECTION OF
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NEW YORK

Made in Germany.

On YOUR Motorcycle means a FAT, HOT ARC FLAME at the first ¼ turn of your pedal and ever after. It's the strongest, most efficient, lightest and most compact Magneto made.

Over 15,000 on American 1910 Motorcycles.

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HERZ means absolute dependability.

Mr. E. W. Rietz says: "It's the best Magneto made. My machine will run just as slow as a battery machine and is a lot more reliable."

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"Bougie Mercedes"
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Absolutely
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Proof
Against
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4 Point Disc

"Rolled into the Shell"

Greatly Increases the Life of the Plug

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Points can be adjusted to suit the compression of any motor.

The Greatest Value in Spark Plugs Ever Offered.
Absolutely Guaranteed One Year.
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Class, Power, Speed and Satisfaction are the Appealing Features of the

1910 EMBLEM MOTORCYCLES

A TRIO OF WINNERS.
4 H. P. Single Cylinder.
5 H. P. Single Cylinder.
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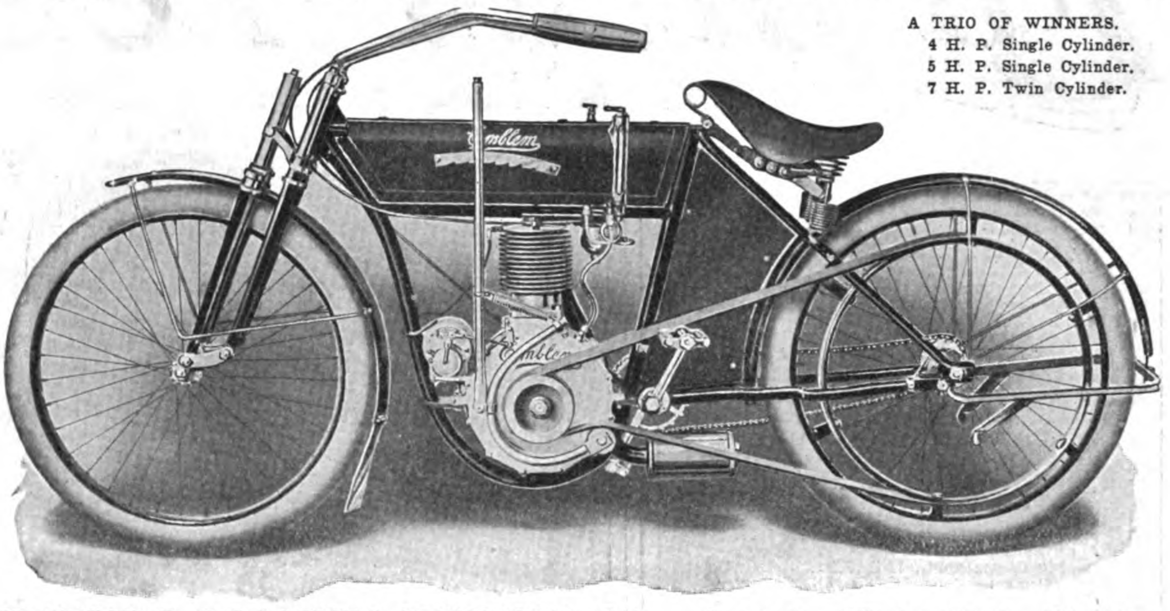

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ALSO MANUFACTURERS OF THE EMBLEM BICYCLE.

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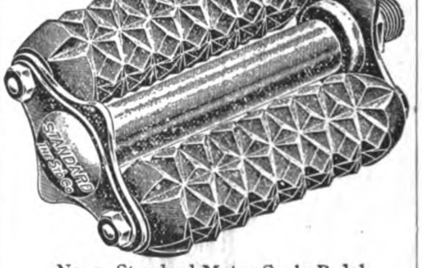
MOTORCYCLE PEDALS

Wide Tread Pedals combining *Comfort, Utility* and *Reliability*. Constructed of the *Best* materials by *Skilled Mechanics*.

PRICE, $3.00 PAIR



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Emergency Axles, Sager Motorcycle Toe Clip, Diamond E <E> Spokes. Bridgeport and Standard Pedals. Sager and Standard Toe Clips.

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WEAR LONGEST

Empire molded motorcycle tires are extra heavy and extra strong. They are made to give proper service on the heavier and faster motorcycles now being generally made. The best quality of Sea Island fabric is used—closely woven, of the same type as used in automobile tire construction. High class rubber is used throughout, which will give great wear and withstand great abuse.

CORRUGATED TREAD TIRE

This design will aid greatly in preventing side slipping, without detracting from the resilience or easy-riding quality of the tire in straight riding.

The Checkered Tread is the best non-skid tire ever offered for motorcyclists' use. It is very handsome in appearance. The rubber used in the tread is of a composition that gives the largest possible service. One of these tires ought to be on the rear of every motorcycle, the year around, as a guarantee against dangerous side slips.

EMPIRE TIRE COMPANY
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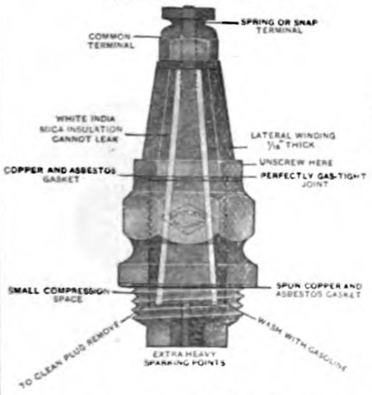
WILL OUTLAST YOUR MOTOR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COMMON TERMINAL
WHITE INDIA MICA INSULATION CANNOT LEAK
LATERAL WINDING 1/16" THICK
UNSCREW HERE
COPPER AND ASBESTOS GASKET
PERFECTLY GAS-TIGHT JOINT
SMALL COMPRESSION SPACE
SPUN COPPER AND ASBESTOS GASKET
TO CLEAN PLUG REMOVE
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EXTRA HEAVY SPARKING POINTS

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THE
MOTORCYCLES
THAT
WIN
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You will find they always use

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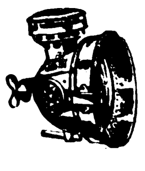
LIGHT THE WORLD

TAIL LAMP

RED or WHITE GLASS



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IF SO, WE HAVE IT

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When down in your heart you know that the

HARLEY-DAVIDSON

Is by far the BEST BUY in the Motorcycle field.

Harley-Davidson Riders are ENTHUSIASTIC MOTORCYCLISTS, and get more real enjoyment out of their machines than riders of other makes. They do not have to spend their time "tuning up" and "adjusting" their mounts in order to keep them running.

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Don't fail to investigate the new

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You will learn that to "quality" we have added mechanical and electrical features which make Magneto ignition a joy to the rider.

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INDESTRUCTIBLE PAN-CAKE WINDINGS.

Mounted between the Magnets.

Thoroughly Water Proof
Efficiency at Low Speeds
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Guaranteed to give you new thrills and no trouble.

Two-cell motorcycle coils a specialty. Our highly efficient, indestructible, pan-cake winding makes this construction easy.

Write for Bulletin No. 11.

Pfanstiehl Electrical Laboratory
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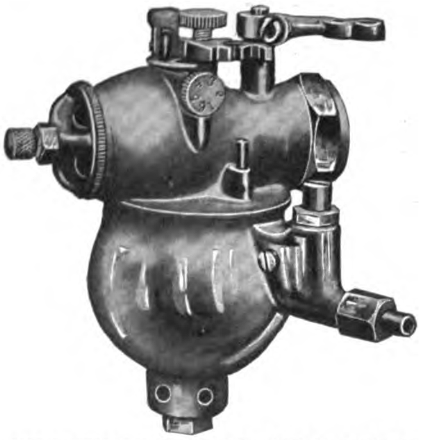
Heitger Model F 1910
Motorcycle Carbureter



¾ INCH FEMALE THREADS, CUT ½ FULL SIZE.

It has mechanical control of gasoline feed to mixture, independent gasoline adjustments for both low and full speeds, indexed adjusting screws, throttle universal, can be set to operate from either side, straight line gasoline connection, new design float chamber, can be swiveled to any position, its shape reduces splashing of liquid to the minimum, handy priming stem, improved, durable, reliable air valve, all gasoline adjusting screws indexed, and ball rachet retained, all balls and springs of bronze. ¾-inch female threads. List $10.00. Fully guaranteed.

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THE MARVEL

Because it has the Curtiss 4-5 h. p. Overhead Valve Motor that no single cylinder motor can equal.
Because the Frame is strong and neat in appearance. The 2½ gallon Frame tube cannot break, dent or leak. Low saddle position.
Because the value is equal or better than any $250 Motorcycle, and yet sells for only $225.
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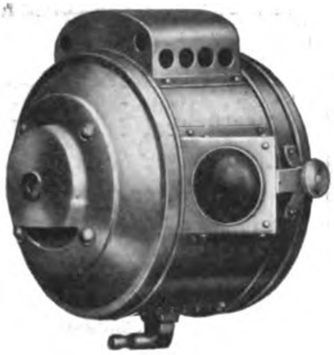
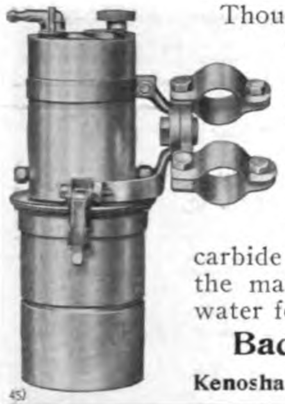
Because Its Saddle position, Correct shape, Sager Style Spring Fork, Long Wheel Base and Perfect Controls make it a very comfortable riding Motorcycle.
Because you can inspect each part without having to remove another part to get at it.
Because wherever the Marvel Motorcycle is seen there will immediately be a big demand for it, and you cannot afford to let your competitor sell it in your locality.

MARVEL MOTORCYCLE CO.
HAMMONDSPORT, N. Y.
Member M. M. A.

Ask the Man Who Uses Them



That's the way to find out whether Solar Lamps are superior. If he's ever used other makes, ask him why he's using Solars. He'll tell you more emphatic truths about lamp values in a few minutes than we could tell in a page.



Thousands of bicyclists and motorcyclists swear by the Solar.

Absolute safety when riding at night is assured riders who use the new Solar Lamp and Generator. The lamp throws a strong, steady beam a long distance ahead. The generator has greater carbide capacity than any other on the market, and perfect control of water feed. Send for catalog.

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We've grown so large that we have to move—

So great has grown the demand for Reliance and J-D Spark Plugs that our plant in Newark has become so small we cannot make plugs fast enough—in Detroit we've purchased enough property and built a building large enough, and installed enough machinery to make all the spark plugs required for the next year—not to assemble them but make them—the porcelains included. Our location in the "Hub of the Motor World," Detroit, with the most up-to-date factory of its kind in the world, will permit us to make quick deliveries and supply the best all-around spark plugs made on the face of the earth, in numbers as you desire them.

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Try out to YOUR satisfaction

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Motorcycle Tires

Use them Hard—They're made to stand it—then you'll realize, as have all Diamond users, that you've found an Unequalled Motorcycle Tire Efficiency.

THE DIAMOND RUBBER CO.
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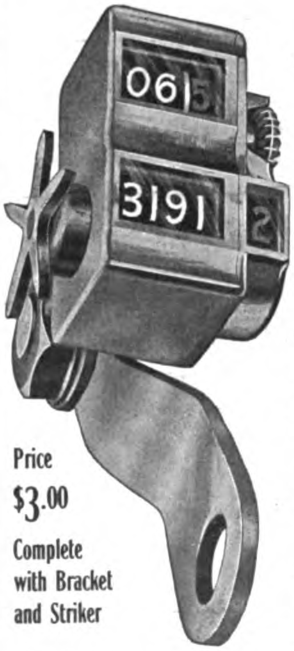
Special Motorcycle Tire Booklet on request



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Motorcycle Trip Cyclometer

Price
$3.00
Complete
with Bracket
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Made heavy and durable for the hard usage it receives on the Motorcycle.

Adjustable Bracket fits all makes of machines.

Large and strong striker.

Made for 24 in., 26 in. and 28 in. wheels.

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Makers of Cyclometers, Odometers, Counters, Tachometers, Tachodometers and Die Castings

YALE MOTORCYCLES

Hold world's record for endurance. Operated at lowest upkeep cost of any. Ran 132 hours without fan or other cooling device and DID NOT OVERHEAT. LONG STROKE MOTOR; SILENT MUFFLER; COMFORTABLE TO RIDE; EASY TO OPERATE

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1910 Models are being delivered. Write to-day for agency proposition. Get our booklet, "What is Reliability?"

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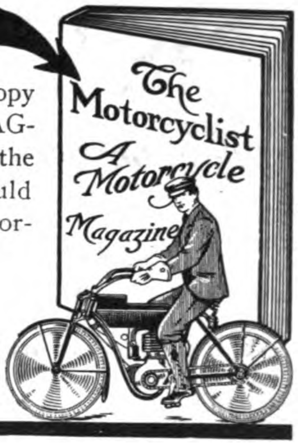

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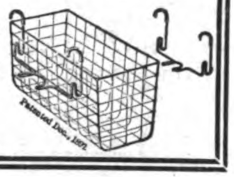

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Best Thing for the purpose ever put on the market. In use all over the United States. ¶ Can put on or detach instantly with adjustable hook. ¶ Good sellers because the riders all want them and the price is popular. Write for Prices.

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Now's the time to advertise in

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Your readiness to sell last year's machine

3 Cents a Word

SAGER CUSHION FORK

Often Imitated But Never Equalled.

Used as standard equipment on the

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NEW ERA
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When purchasing these motorcycles you are sure to get **The First and Best Cushion Fork**

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The S-C-R-E-A-M Motorcycle Whistle

FITS ALL MOTORCYCLES
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It S-c-r-e-a-m-s and S-c-r-e-a-m-s "and then Some"

All whistles shipped by mail same day order is received. Price $3.50 and 10c extra for mailing.

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——Make a Strong Combination——

Be Sure to Specify Duckworth.

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Chairman F. A. M. Membership Committee,
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Dear Sir: I feel that I ought to be a member of the F. A. M. We must have a national organization to promote motorcycling and to guard and care for its many interests. Please send me particulars.

(Signed)____________________
State ____________________
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1910 RACYCLE

Agency Proposition is a Clean-Cut Money-Maker? **WE HAVE THE MACHINE** and You the Facilities to Sell it. Let Us Get Together. Write Today for Particulars.

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TWO BATTERY COIL!

With or Without Plug Switch. Single and Double Cylinder Types.

The most reliable and durable coil yet. Can be put in battery case with two batteries and will run you 1,000 to 1,500 miles. Write for particulars now.

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Now Ready — Our 1910 Catalogue — Very Complete — Send for It

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COVERS, $3; CUT-OUTS, 75 CENTS

AGENTS FOR INDIAN AND EXCELSIOR MOTORCYCLES
FULL LINE OF PARTS — SECOND HAND MACHINES, $50 UP

F. B. WIDMAYER CO., 2312 Broadway, **NEW YORK CITY**

The Absence of Vibration makes it pleasurable to ride

The Pierce Four Cylinder Motorcycle

Besides this Vibrationless element, the Pierce Four is replete with numerous superior features, such as:

Four Cylinder Engine Shaft Drive (enclosed) Magneto Ignition Two-speed Transmission Force Feed Automatic Oiling System Free Engine Clutch Large Tubing; no Tanks

THE PIERCE SINGLE CYLINDER

motorcycle is like the Four in smooth and easy running qualities. This model represents the most advanced ideas in Single Cylinder Motorcycle design and construction. Ask for Catalog "G."

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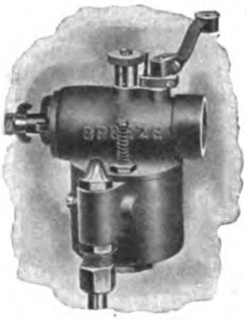

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CARBURETERS

made of polished aluminum, small parts of brass. Weigh fourteen ounces each, price $10.00. Special connections for popular machines included in price; 80 to 95 miles per gallon under road conditions. Write for special literature. Send 25 cents for our Engine Trouble Text-book. 40 pages.

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THE INSTRUMENT OF PERMANENT ACCURACY

ONLY MOTORCYCLE SPEEDOMETER

WITH A STEADY HAND

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Special Fittings for every Spring Fork Machine.

Send at once for new catalogue.

Our New Models have Trip as well as Season Odometer without extra charge, and you have a choice of either 60 or 80 mile dials at the same price.

We can now furnish fittings for the following 1910 Machines:

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20 25
TRIP
MILES PER HOUR
10 20 30 40 50 60
TOTAL
1 3 5 7 4
TENTHS
STANDARD
SPEEDOMETER
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PAT. APPLD FOR

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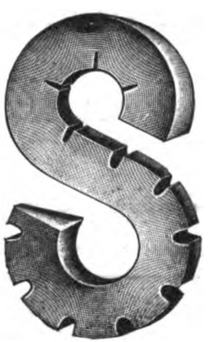

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CLEAN AND NOISELESS

The most satisfying motorcycle transmission that has ever been placed on the market. It requires no attention, throws no oil and is certainly well worth specifying when you order your new mount.

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Motorcycles in Stock

4 H. P. Single Cylinder,	$225
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Both with Bosch Magneto Ignition

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Finest ever copyrighted
Postpaid to the trade

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If you or your friends or your friends' friends are interested in the latest and best improved Motorcycles, regardless of how highly you regard other makes—do not purchase a Motorcycle until you have written us for Our Latest Catalogue describing in detail, all about Our New and Original Models. Best Agent Proposition to Date.

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They're easiest to fix. Cost least for upkeep. Tough yet resilient and easy riding. Outwear several pairs of ordinary tires. Can be permanently repaired, if jagged by nails, etc.

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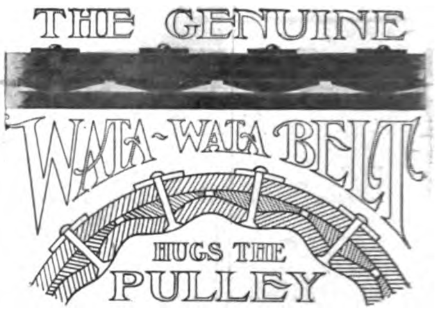

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A MINISTER'S EXPERIENCE.

The Rev. B. H. Davies writes:

"The ⅞-inch belt on my 3 h. p. has done well over 7,000 miles this season, including 1,279 miles in the six days' record. Their immunity from trouble has made me an enthusiastic supporter of your belts."

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CUT DOWN YOUR EXPENSE AND INCREASE YOUR SPEED AND POWER BY FITTING THE GENUINE WATAWATA. It means more fun and less work; money in your pocket at the end of the season and victories and prizes in contests.

Specify the Majestic Watawata on your Motorcycle.

Buy of your Dealer or direct, remitting with order. A fastener free with each belt.

AN ADJUSTABLE FASTENER

MAJESTIC BELT FASTENER
WITH THREE LINKS TO VARY LENGTH
MADE OF SPRING STEEL DROP FORGED
TEMPERED AND CASE HARDENED

FOR RUBBER OR SOLID LEATHER BELTS

With the MAJESTIC Fastener the rider can start, using the longest link, changing to the shorter links as the belt stretches, reducing the cutting of his belt two-thirds and insuring a proper tension all the time. This fastener is without an equal.

BUY FROM YOUR DEALER.

TUBULAR BAGGAGE CARRIER
WITH THREE HEAVY STRAPS
VERY STRONG

Fifty per cent. larger and 100 per cent. stronger for 1910. Four supports instead of two. Tubing increased in size. Heavier clips and bolts. Longer straps. Fits all 1909 and 1910 machines.

PRICE, $5.00.

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Dealers supplied only by Jobbers. Jobbers supplied by

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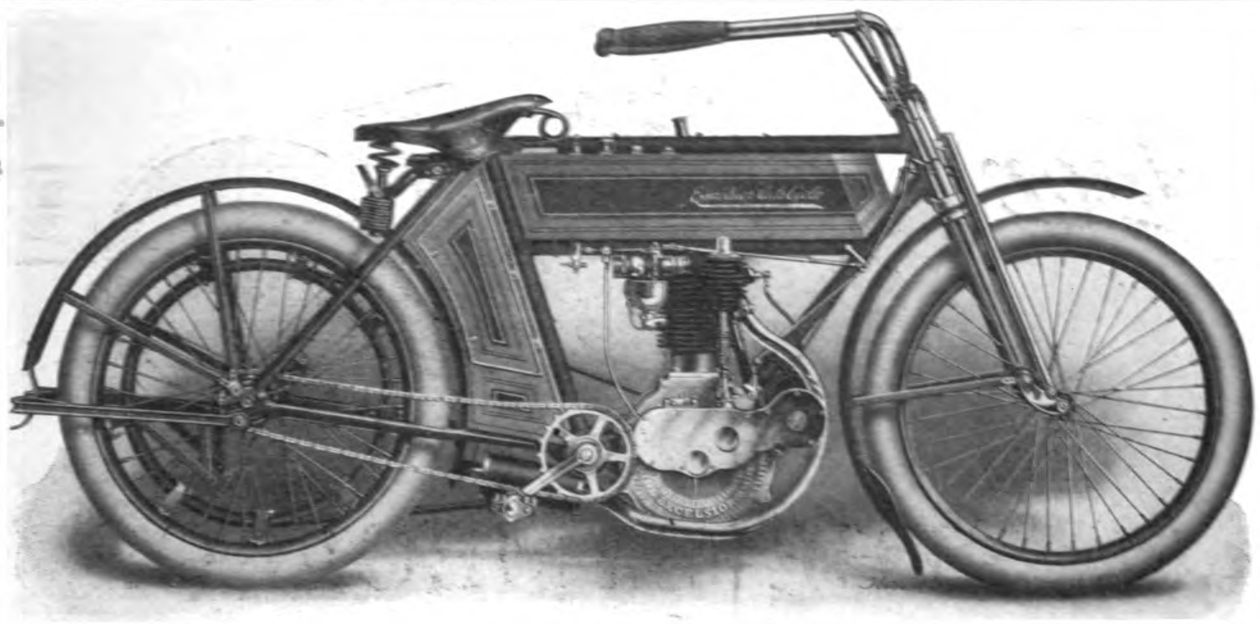


THERE ARE WAYS OF WINNING

When big road contests are held, we do not especially prepare and equip one machine for that event, but the steady, consistent service of all

EXCELSIOR AUTO-CYCLES

leads enthusiastic owners to enter in numbers confident of results.

In the New York Motorcycle Club's Single and Double Century Run of May 1st, Six Excelsiors started in the 200-mile class; three Excelsiors started in the 100-mile class.

All finished with perfect scores.

At the same time, Stanley T. Kellogg and Shelton Sturges rode 330 miles in 12½ hours without an adjustment or repair of any kind.

THUS DOES THE 1910

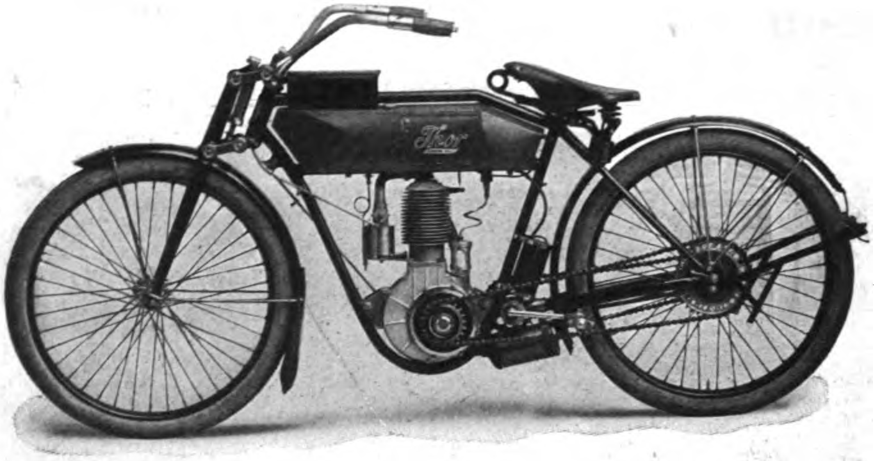
EXCELSIOR AUTO-CYCLE

MAINTAIN ITS REPUTATION AS

THE ONE THAT ALWAYS MAKES GOOD

EXCELSIOR SUPPLY COMPANY
ESTABLISHED 1876
233-237 RANDOLPH STREET, CHICAGO, ILL.

Thor



IV

THE SYMBOL OF MECHANICAL PERFECTION

When you buy a motorcycle, you pay for something from which you expect to gain profit, either in money or pleasure. You obtain in the *Thor* IV the most possible for the money. You owe it to yourself to examine the *Thor* just as soon as you can do so.

For this is a wonderful machine. It is not wonderful because we say so, but because we have in fact made it so. The machine will prove this statement by an actual demonstration.

The dealers and the riders of motorcycles have demanded a single cylinder motorcycle that will deliver greater power and speed than they have been able to obtain in the motorcycles of the past, they demand a motor that will stand up through the strain that is placed on a motorcycle. A machine where the cost of upkeep will be the smallest factor.

Our nine years of experience as motor builders proves to us that the dealers and the riders were right in their demands, for it has required all of our skill and money to produce the small motors we have in the past, to stand the strains, and now that the call for a large single cylinder machine is here, we are ready to fill the demand, for in the **THOR** 4 h.p. motor we can give the purchaser greater and better value than it was possible to give in the small motors. It permits us to strengthen all the wearing parts, to adopt methods of eliminating friction, because of its liberal size.

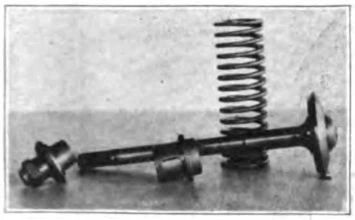
This means that you are able to obtain in the **THOR IV** a motorcycle that has 60 per cent. greater wearing quality, with power that has never been obtained before and which can only be found in the **THOR IV**—and one that you do not purchase as an experiment compelling you to continue experimenting with it to get satisfaction, for we do not adopt one single idea or use one ounce of metal until after it has been put to the TEST of TESTS.

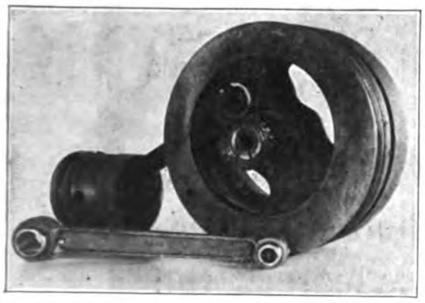
We are not permitting our most skilled mechanics to devote their time doping up a few machine for racing purposes, to go out and represent to the public that all **THOR** motorcycles are like those special few. They use their time in producing in each machine the duplicate of what our mechanical engineer has passed upon as being the BEST for all around work and conditions. Thus the purchasers of the **THOR IV** are not being fooled. ALL are EQUAL. There is great satisfaction in purchasing an article from a house that built up and maintains its prestige on quality. The HOUSE OF THOR has been built on this policy. If you buy a diamond from Tiffany or a hat from Knox or Stetson, you and your neighbors know that it must be right and for that same reason the careful purchaser of a motorcycle comes to the HOUSE OF THOR for his motorcycle.

YOU CAN'T AFFORD TO WASTE YOUR TIME WITH EXPERIMENTS or hire the repairman by the week, month or year, therefore the BEST is the CHEAPEST and the **THOR IV** is the CHEAPEST because it is the BEST.

Do You Open Your Mouth like a young bird and gulp down whatever food or medicine may be offered to you? No, we should hope not.

hen use the same sense and judgment when you purchase a motorcycle. Go into details—ask how it is constructed—make he dealer show you all the details and tell why. We know that when you make comparisons, nothing but a *Thor* will satisfy.





SUPREME, WHY ?—BECAUSE:

Our nine years of experience permits us to know much better than any one else just what part of the motorcycle would wear out the quickest; just what parts receive abuse, through lack of knowledge or neglect. We have not only studied this piece of mechanism, but we have also been close students of the men who ride them, which permits us to present to you THE MOTORCYCLE SUPREME, *THOR IV.*

The roller bearings we use in our construction are fitted to one ten-thousandth of an inch.

Examine the intake and exhaust valves.

We have eliminated the slot and the key in the stem, which previously caused more or less trouble, using a simple device which screws on the stem, and which locks the collar better than before, and permits the rider to adjust the opening of the intake valve, or allow for wear or adjustment on the exhaust valve stem.

Note how well balanced our fly-wheel construction is.

Cylinder and head all in one piece; accurately bored and then lead-lapped like a gun barrel.

Note the accuracy and finish of the timing gears and cams.

Just look at the enormous expense we have gone to in eliminating that short drive chain, by attaching the geared transmission, which runs on ball bearings.

Connected with this, is on compensating sprocket. In this sprocket we have hardwood inserts, using the highest type of steel for rings, on which the sprocket would slip or revolve, and locked with a simple device that is positive and effective, permitting the adjustment of the sprocket to any tension desired.

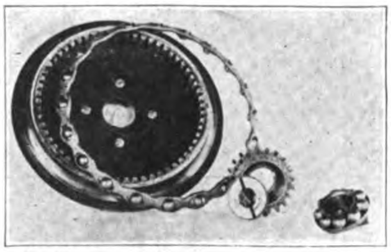
The mechanical oiler. Without a question of doubt, this is the only positive mechanical oiler yet placed on a motorcycle. Simple in construction—positive in action—accessible to the novice—it is not necessary to take the motor apart to look into it—always works in sight of the rider; this device is of more value to purchasers than anything that has yet been adapted to a motorcycle.

Note the pneumatic forks. These are not forks in name only, but a scientific piece of mechanism worked out as accurately as the motor itself, and hinged on ball-bearings.

In every part of this motorcycle, we can point out a SUPREME feature. If there is a possibility of the smallest screw dropping off, we can show you where another screw will lock that one. Wherever it is possible to lock a nut with a cotter pin, this we do.

If you are a merchant seeking a motorcycle that will stay sold and cause no annoyance, WHICH MEANS CLEAR PROFITS, then seek us.

If you are seeking a motorcycle for business and pleasure, and desire to receive great returns on your investment, then seek the agent of the THOR IV.



AURORA AUTOMATIC MACHINERY CO., Thor Building CHICAGO

DISTRIBUTORS

FREED, San Francisco, Cal.
S. LENG & SONS CO., New York, N. Y.
MOTORCYCLE SPECIALTY CO., Boston, Mass.
FRED. WILLIAMS, Denver, Col.
GUS. HABICH, Indianapolis, Ind.

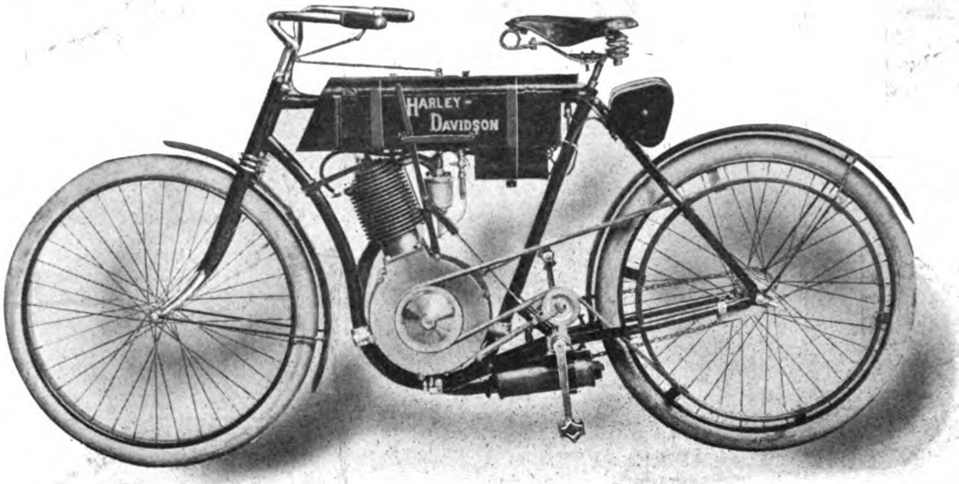
This 1903 HARLEY-DAVIDSON

WAS THE ACKNOWLEDGED LEADER AT THAT TIME

Same Continuous Loop Frame

Same Flat-Belt Drive

Same General Lines All the Way Through



Same Powerful Slow Speed Vibrationless Motor

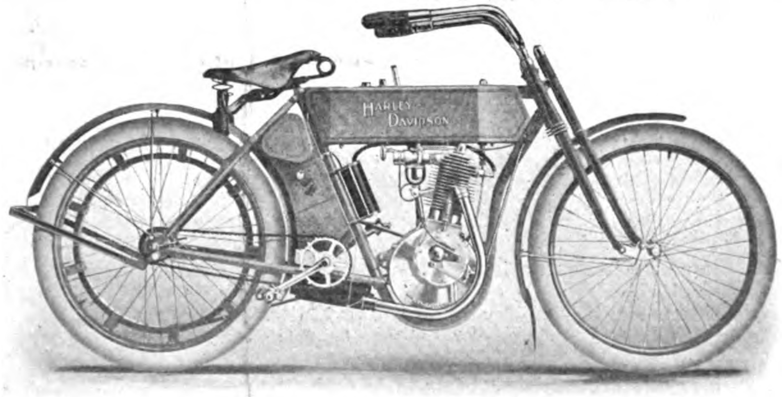
Same One Piece Cylinder

Same Large Fly Wheels

And it has stood the test of time, and to-day still holds the same exalted position it occupied seven years ago, and although extensively copied and imitated it has never been equalled, as the official records will prove.

Compare This 1910 Model With Anything on the Market To-day

Our Claim:
The best all around road machine ever built



We Would Be Pleased to Send Our New 1910 Catalogue A

HARLEY-DAVIDSON MOTOR CO.

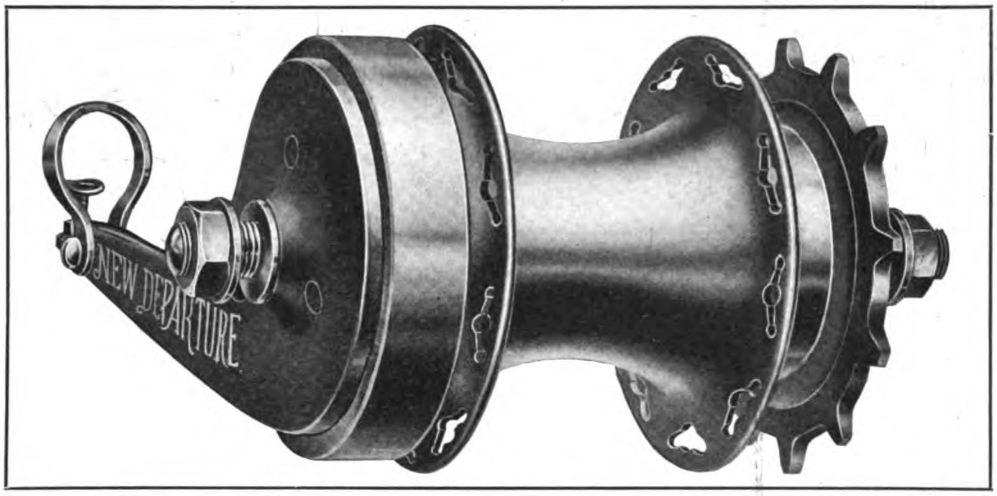
MILWAUKEE

Member Motorcycle Manufacturers Association

NEW DEPARTURE

INTERNAL EXPANDING BAND

COASTER BRAKE



STANDS PROVEN IN PRACTICAL SERVICE

Several thousand motorcyclists are using the NEW New Departure Internal Expanding Band Brake and find it can be depended upon absolutely. Not one of these brakes has failed to make good. Read the following statements of success of the NEW New Departure under severe racing conditions.

New York, March 18, 1910.

"In the Lowell motorcycle races of last year, I had the pleasure of using one of your internal expanding band brakes and to say the least I was pleased with the smoothness of operation and efficiency of the brake and I can say without hesitation that I attribute the winning of the 10-mile event to the positive action of the brake, as it was very much a matter of who could go up to the corners fastest, then using the brake and getting away quickest." STANLEY KELLOGG.

Alhambra Cal., April 18, 1910.

"After using your 1910 coaster brake on my chain drive racer, I found it to give absolute satisfaction, not only in racing but in road work also. The great trouble I formerly had when going at great speed in a long race was that coaster brakes always bound. This was a dangerous condition and usually caused a spill. Your brake does not bind and it has my highest recommendation to all riders.

EDDY LINGENFELDER.

WRITE TO-DAY FOR FULL DESCRIPTION

THE NEW DEPARTURE MFG. CO., Bristol, Conn.

COASTER BRAKE LICENSORS

G&J
G & J MOTOR CYCLE
28 X 2¼
MANUFACTUERS APPROVE

DEALERS BUY
G&J TIRES
G&J TIRES
MOTOR CYCLE TIRES
MOTOR CYCLE TIRES

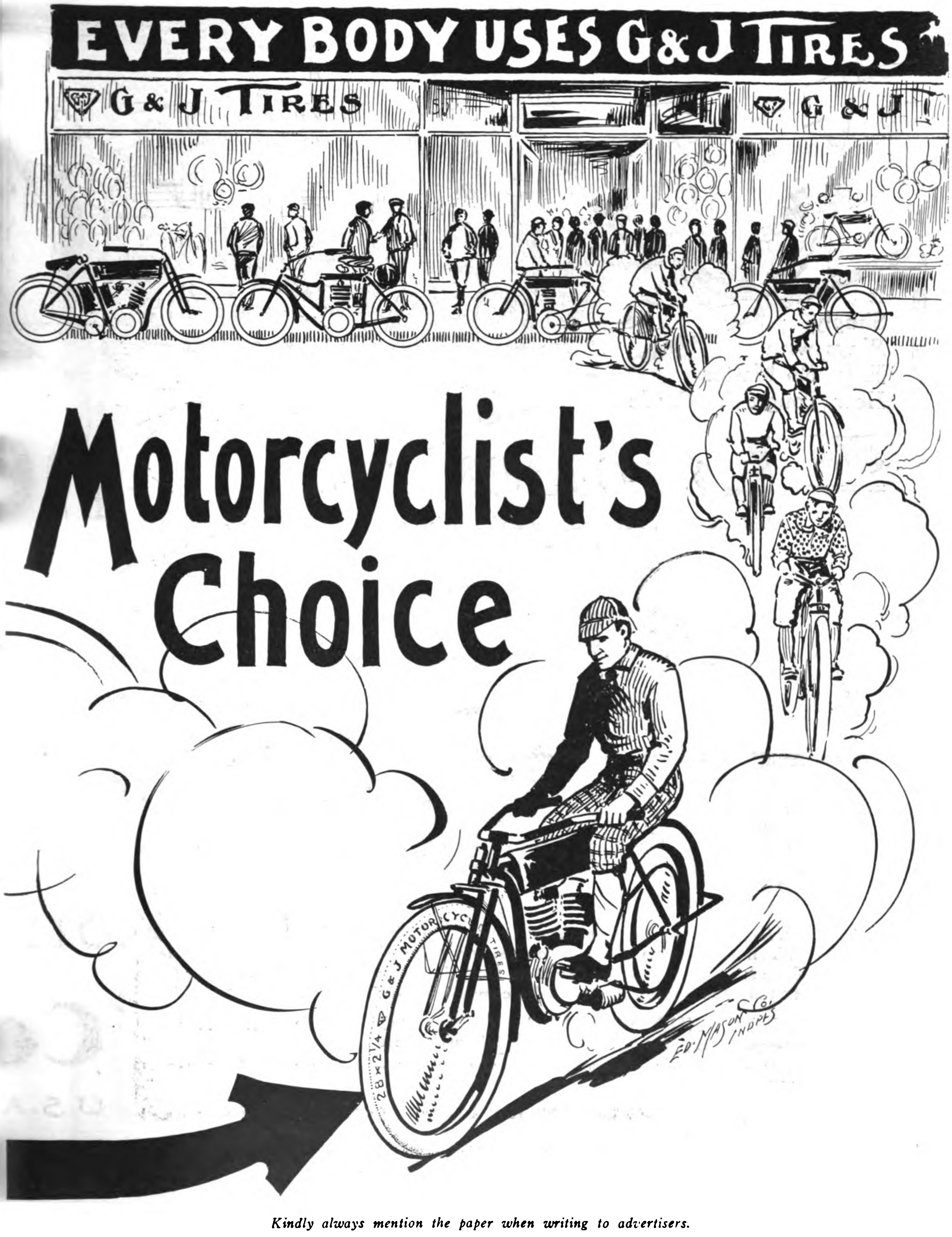
The

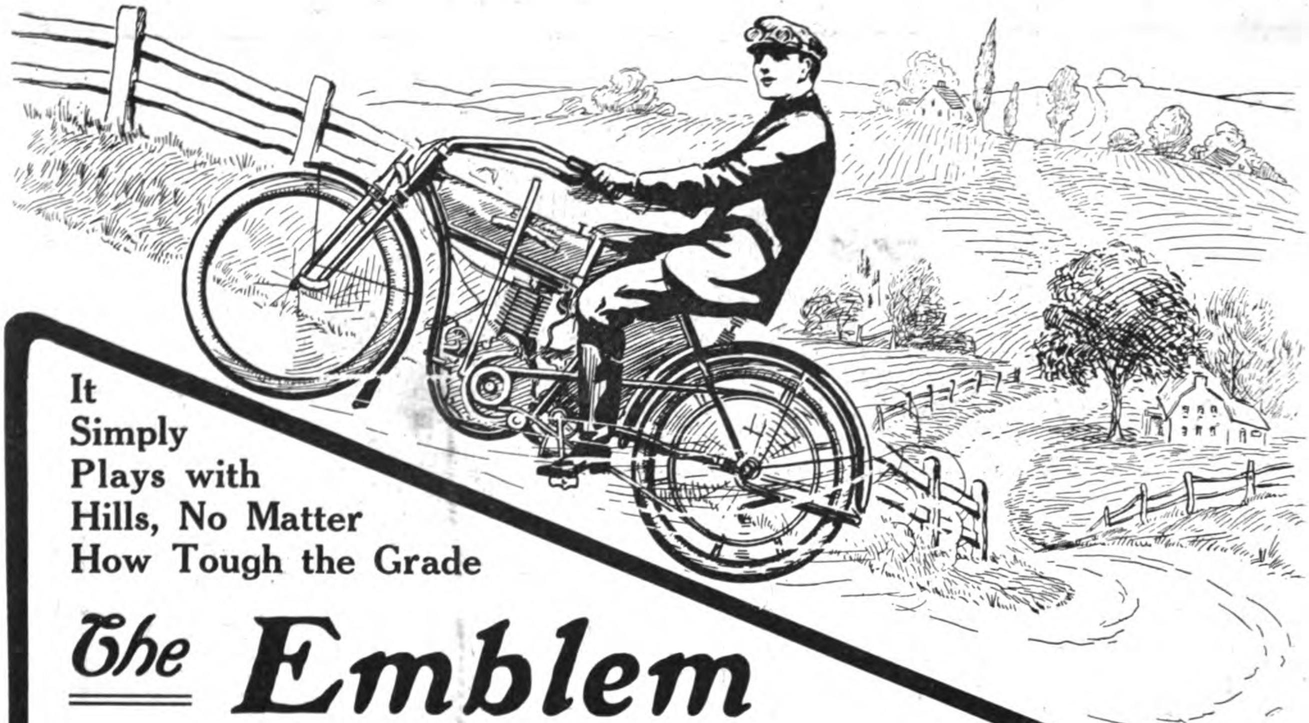
G&J
TRADE MARK REG. U.S. PAT. OFFICE

Quality
Service
Satisfaction

G & J TIRE Co

INDIANAPOLIS. U.S.A


EVERY BODY USES G&J TIRES
G & J TIRES
G & J
Motorcyclist's Choice
G & J MOTORCYCLE TIRES
28 x 2 1/4
ED. MASON CO. INDPLS

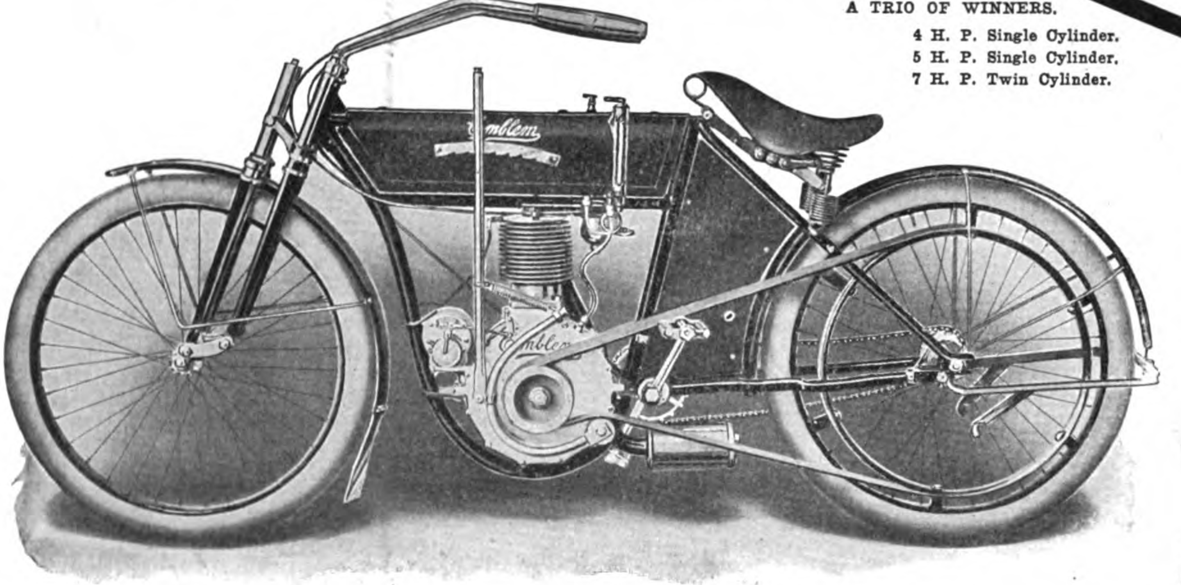


It Simply Plays with Hills, No Matter How Tough the Grade

The Emblem

With its Class, Power, Speed and Satisfaction

A TRIO OF WINNERS.
4 H. P. Single Cylinder.
5 H. P. Single Cylinder.
7 H. P. Twin Cylinder.



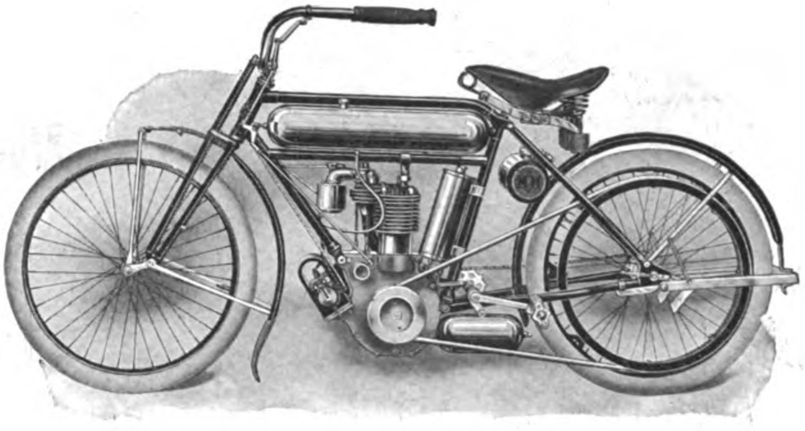
Entirely *Emblem*-made, by an Established Concern, of the Best of Materials, Right and Cleverly. When you buy an *Emblem* you get something else than a mere assembled machine—for our Three Models are Complete Units in themselves. Write today for Catalogue and Study the Specifications—Make comparisons—We invite that sort of thing.

EMBLEM MANUFACTURING CO., Angola (Erie Co.), N. Y.

ALSO MANUFACTURERS OF THE EMBLEM BICYCLE.

DISTRIBUTORS.

F. M. Spinning, Seattle, for Washington.
Ballou & Wright, Portland, for Oregon.
John T. Bill & Co., Los Angeles, for California
Meredith Cycle Co., Salt Lake City, for Utah.
Alexander-Sewald Co., Atlanta, Ga., for the South
Henry Keidel & Co., Balt., Md., for Va. & W. Va.



M. M. 4 h. p. Magneto Single. Price $225.

MR. AGENT:

IF you are not handling a motorcycle, you are losing a big opportunity to your competitor, because motorcycle sales are increasing day by day, and each year there is an increase of fifty per cent.

The man with the cash don't want a jolty, sputtering racer. He wants a practical machine. It must be clean, be easy to ride, run smooth and noiseless.

He won't warm up at all to the ordinary demonstration. He wants a machine that starts like an automobile. Such a machine is the M. M.

Our method of handling inquiries and cooperating with the agent cannot be excelled, and we give the M. M. Agent the strictest protection in their exclusive territory.

Don't delay a minute. The best part of the season is still ahead.

AMERICAN MOTOR COMPANY

716 CENTRE STREET, - - BROCKTON, MASS.

Member Motorcycle Manufacturers' Association

BRANCHES:

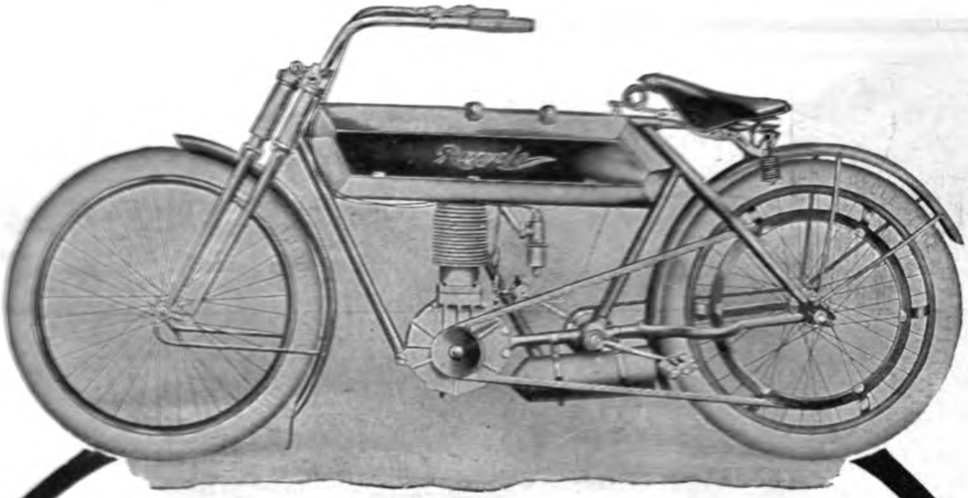
BOSTON—W. C. Marsh, 178 Huntington Avenue.
NEW YORK, 10 W. 60th Streeet.

BUFFALO, 895 Main Street.
CHICAGO, 2127 Michigan Avenue.

DALLAS, TEX., M. M. Bldg., South Ervay Street.
LOS ANGELES, 1084, So. Main Street.

AGENTS EVERYWHERE

Kindly always mention the paper when writing to advertisers.



Ask the Man Who Rides One

and he will tell you that the easiest running, nicest riding and simplest machine to handle, that he has ever been on, is the 1910 Model

Racycle Motorcycle

Because it is built on the right principle, on the correct lines and with the idea of making a machine that is not complicated and difficult to understand, but simple, powerful and withal a Motorcycle that

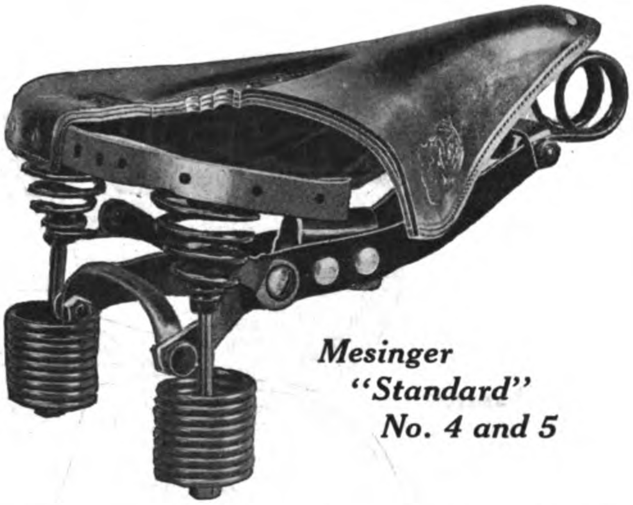
ANYONE CAN RIDE WITH PLEASURE AND COMFORT

Long Wheel Base **Low Riding Position**
Strong, but very Sensitive, Spring Fork
Large Tank Capacity **Large Muffler**
Perfect Carbureter Adjustment
Musselman Armless Air-Cooled Coaster Brake

Our best references are our Agents and Riders.
Write for complete details, prices, etc.

THE MIAMI CYCLE & MFG. CO.
MIDDLETOWN
OHIO

Mesinger "Cavalry" No. 4 and 5



Mesinger "Standard" No. 4 and 5

When you strike rough roads you feel the difference. Ask any rider the facts about

MESINGER

"CAVALRY" and "STANDARD" MOTORCYCLE SADDLES

Ask What the Patented Shock Absorbers Do

COST VERY LITTLE MORE THAN THE ORDINARY SADDLE

Built for COMFORT, tested and approved by many manufacturers of motorcycles. They save the rider and machine from disagreeable jolts, prevent side-sway and add to the pleasure of motorcycling.

Mesinger "Cavalry" No. 3

AN UNSOLICITED TESTIMONIAL:

CHAMBERS CYCLE CO.

Rome, Ga., April 4, 1910.

"The H. & F. Mesinger Co., New York.

"Dear Sirs—I would like to give you voluntary testimony about your Mesinger Cavalry Motorcycle No. 3 Saddle.

"I rode a motorcycle in the 1909 F. A. M. Endurance Run, and the machine I was to ride was not equipped with a Cavalry saddle. So I refused to mount it until the manager of the team equipped it with a Cavalry saddle. I covered the distance from Cleveland to Indianapolis with ease, and was not at all tired out.

"I have been a motorcycle rider for seven years, and I think as much of a good saddle as I do of a good machine.

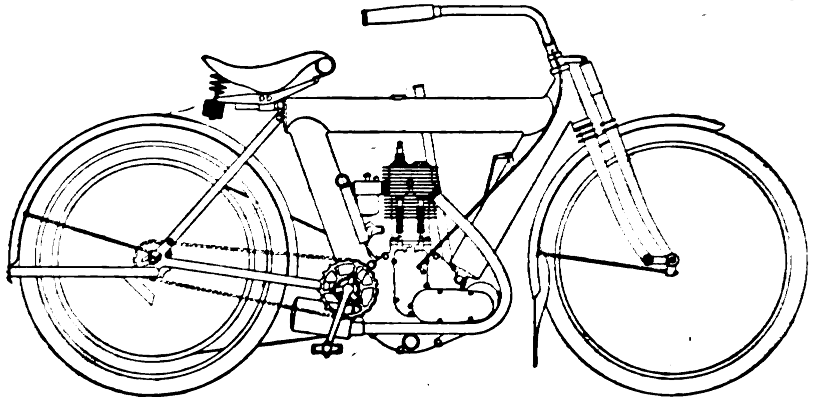
"Yours respectfully, "B. V. CHAMBERS."

H. & F. Mesinger Manufacturing Company

1801-1807 FIRST AVENUE NEW YORK

PIERCE

Beauty of Line



Power on Hills

Pierce Vibrationless Motorcycles are winning their way in all parts of the country. They enjoy the confidence of the most discriminating motorcyclists not because they are "different" (although they are) but because of their superlative merit throughout. Excellence of design, compactness of construction, fine material and good workmanship are predominant elements in the Pierce machines.

The Pierce four cylinder is immeasurably superior to any other motorcycle on the market. *It offers more value for the money than any other machine.*

The Pierce Single cylinder is the bell-wether of all machines of its class. *It leads, others follow.*

Our catalog "G" is interesting reading. Sent on application.

Note to Dealers: If the Pierce Agency has not been awarded in your town, ask for our money-making proposition. It will pay you to investigate.

THE PIERCE CYCLE COMPANY

Buffalo, N. Y.

Pacific Coast Branch: Oakland, Cal.

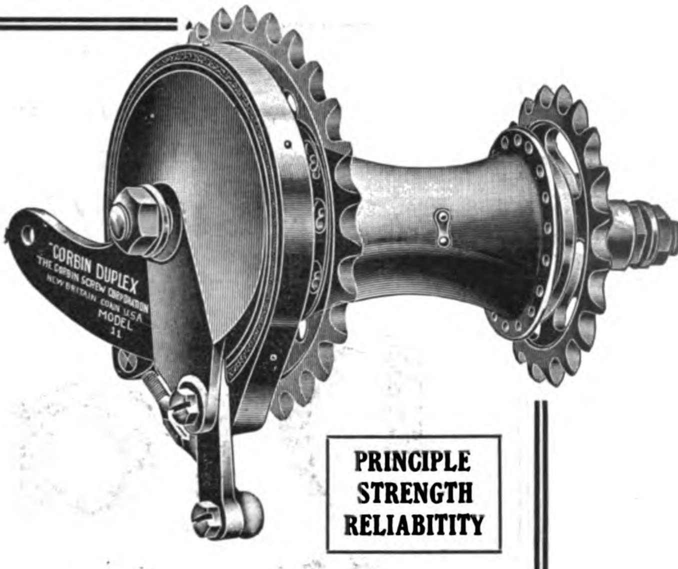
Security on a Motorcycle

IS ASSURED WHEN A

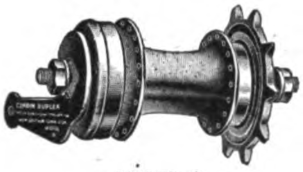
Corbin

BAND BRAKE

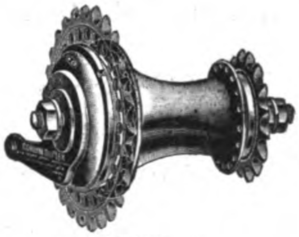
Is Part of Your Machine's Equipment



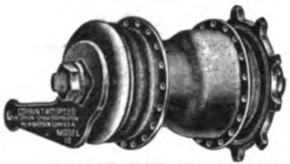
PRINCIPLE
STRENGTH
RELIABITITY



MODEL 8.



MODEL 9.



MODEL 10.

For Either Belt or Chain Driven Machines,

The Success of the **CORBIN BRAKE** Has Been Demonstrated to the Satisfaction of Thousands.

AGENTS AND RIDERS

Handle and Use a Brake Whose Efficiency is Universally Acknowledged. Quotations on Request.

THE CORBIN SCREW CORPORATION

LICENSED COASTER BRAKE MANUFACTURERS

THE CORBIN SCREW CORPORATION OF CHICAGO, 107-109 Lake Street, Chicago, Ill.

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106, 108, 110 Lafayette Street, New York

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MAKE YOUR OWN TEST
TRY OUT TO YOUR SATISFACTION

Diamond
MOTORCYCLE TIRES

Use them hard—they're made to stand it; then you'll realize, as have all Diamond Users, that you've found an unequalled Motorcycle Tire Efficiency.

Built as a small Automobile Tire (not as a large Bicycle Tire) with Automobile Tire fabric and Automobile Tire QUALITY throughout.

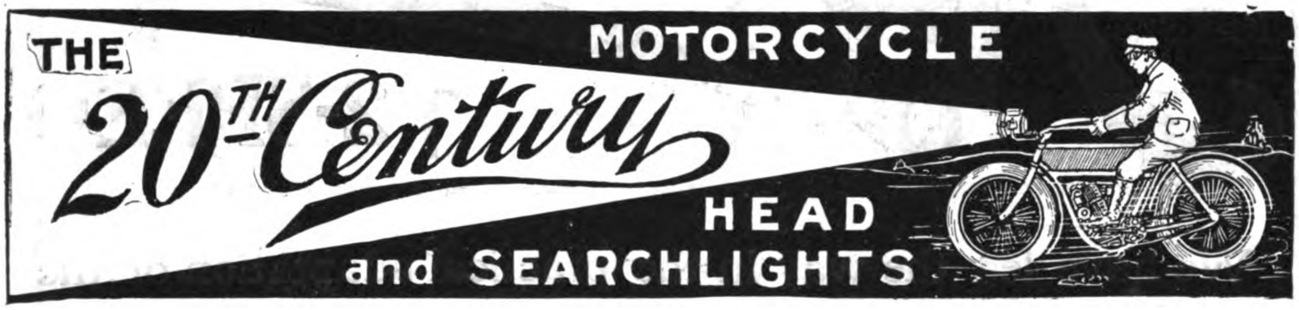
Notice that we use only two plies of fabric, which are stronger than four ply of other makes and many times more resilient.

THE DIAMOND RUBBER CO.
AKRON, OHIO

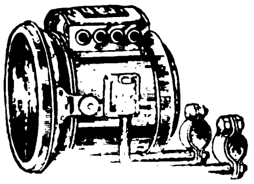
Special Motorcycle Tire Booklet on request

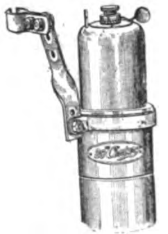
The Light That Lights!

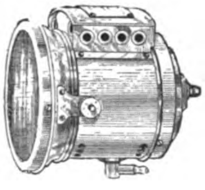
¶It's the 20th Century tried and true, the dispeller of gloom, the light that satisfies. It will make day out of darkness for you—it will not mislead you—it will guide your way in safety.

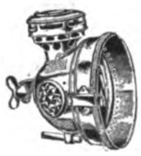


¶Do you ride a motor cycle? Do you sell motor cycles? Do you make 'em? Whatever your position in the sport or trade, WRITE US. We want every one to know the kind of a line this 20th Century product is. If you have some other lamp that does not kill the darkness, or that tries your temper, you will be glad we are here to serve you.


SEARCHLIGHT
No. 102


GENERATOR
No. 10


Model No. 101
FOR STANDARD
FLAT BRACKET


TAIL LAMP No. 3
With Red or White Glass
FITS EVERY M. C.

¶This lamp and generator are not only the finest in construction and the most satisfactory in service but with the brackets shown, fit every motorcycle.

¶Write us please—ask for "more" about these leading lights

20th Century Mfg Co

19 WARREN STREET, NEW YORK.

The only certain two-speed actually on the market is the

Reliance

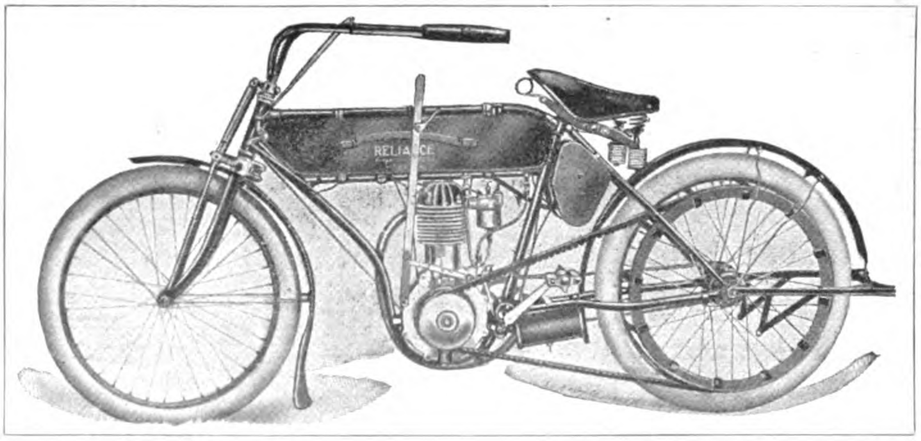
2-SPEED

We have led the way in the practical adaptation of the two-speed feature, and to-day the Reliance is headquarters on two-speed, and in general excellence.

Good Agents Wanted in Unfilled Territory

Start engine anywhere on the steepest hill or in the deepest sand; just push a lever forward, and on you go.

It's a workmanlike, simple, compact, well-appearing, 2-speed and free engine pulley that is ***positive in its action*** whether in high, low or free engine position. 5 to 1 on high, 9 to 1 on low.



MODEL C

Complete with
2-Speed Pulley

$225.00

Other models are a 4½ h. p. Single and a 7 h. p. Twin.

Reliance
Motorcycle Co.
OWEGO, (Tioga Co.) N. Y.
(Member M. M. A.)

THE REPUTATION OF

THE INDIAN

IS FOUNDED ON PERFECTION

IN

QUALITY POWER

AND

EFFICIENCY RELIABILITY

THESE HAVE MADE THE INDIAN

The Most Universally Satisfactory

MOTOCYCLE

IN THE WORLD

For they give the Sportsman Speed; the Tourist the ability he requires on heavy roads and hills; the Business Man the most economical and rapid conveyance for salesmen or collectors; the Doctor a vehicle three times as efficient as a horse at a third of the expense.

Thousands of Indian Motocycles are used by Clergymen, Rural Mail Carriers, Telephone Men, Gas Inspectors and Messengers.

Fifty Police Departments have found the Indian indispensable and 500 Indians are in successful daily use in this, the most trying service a motocycle can be subjected to.

No Other Motocycle in the World Has Been Successfully Put to So Many Different Uses

Send for Catalogue No. 4. Fully Illustrated.

THE HENDEE MANUFACTURING CO.

SPRINGFIELD, MASS.

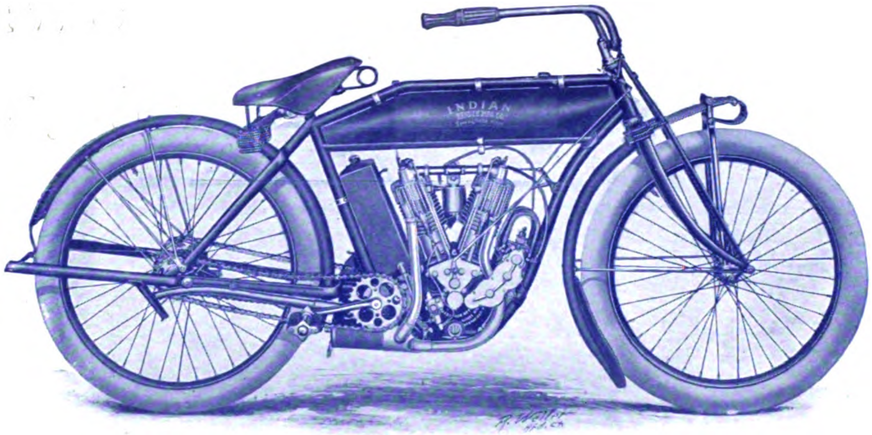
CHICAGO BRANCH:
1251 Michigan Avenue

LONDON DEPOT:
184 Great Portland Street

INDIAN MO

ARE BUILT IN A VARIETY OF SIZES TO SUIT EVERY REQUIREMENT

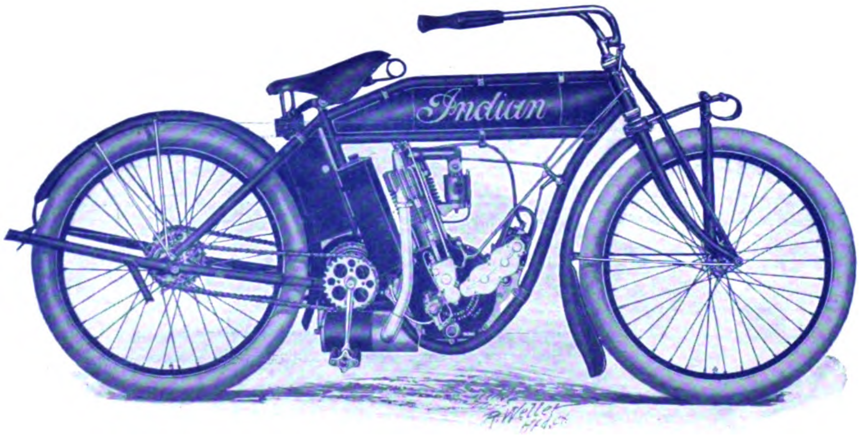
QUALITY



THE BIG ROADSTER

5 H.P. (38.61 Cubic Inches) Twin Cylinder

Most Perfect Tourist and All Around Mount



THE BIG 4

4 H.P. (30.46 Cubic Inches) Single Cylinder Chain Drive

A Powerful Machine for Expert Riders

Indian Mot
of the Big Wo
They hold ever
for Every Di
hold the Transc
The New York
Record, and a
Road Events
Records for C
Washington, C
Lookout Moun
others.

Send for th
cords," free.

If you desir
high gear, a
do the rest. B
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gear fitted (yo
and the flexib
Indian will carr
steadily and wi
the hills.

THE HENDEE MANUFACTURING CO.

SPRINGFIELD, MASS.

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GO RIGHT — STAY RIGHT

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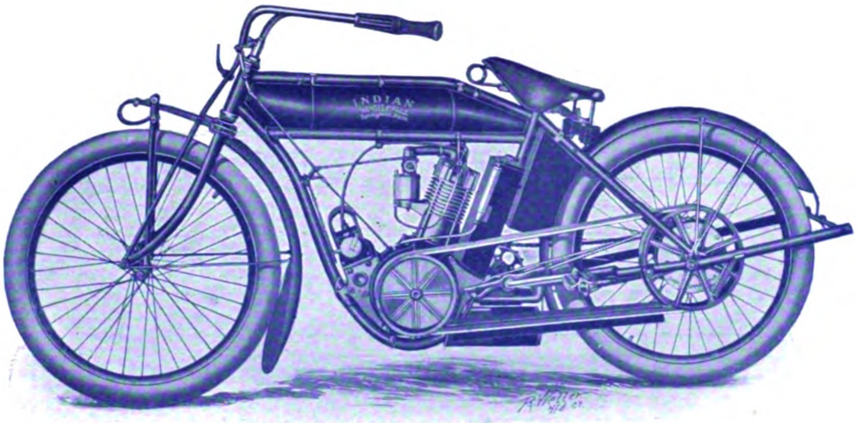
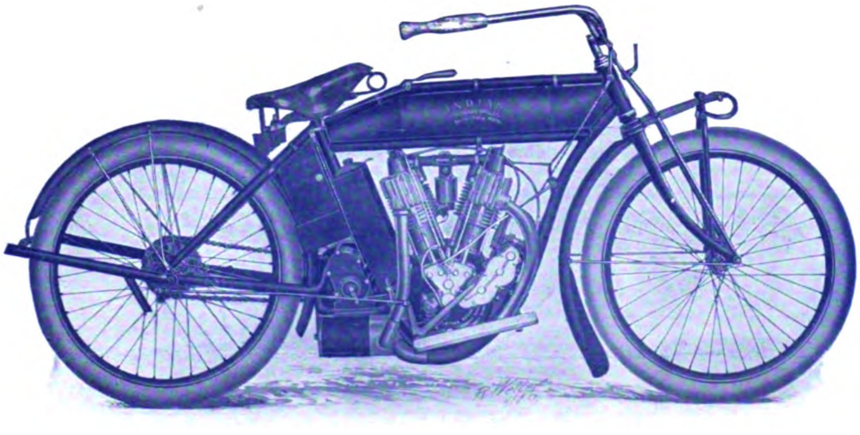


THE BIG 4
4 H.P. (30.46 Cubic Inches) Single Cylinder Belt Drive
A Revelation and a Revolution in Belt Driven Machines



THE INVINCIBLE SEVEN
7 Horse-power Twin Cylinder
Two-Speed and Free Engine Gear

THE HENDEE MANUFACTURING CO.
SPRINGFIELD, MASS.

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WHY THE INDIAN

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THE IMPORTANCE OF PERFECT CONTROL

No Excuse for the Average Accident—Only a Few Hours of Conscientious Practice Required to Make the Novice Complete Master of His Machine

IF the newspapers reporting the fatality have printed the correct details, then the Cortland (N. Y.) youth who ran down and killed a five-year-old child made away after having hastily repaired his machine. The police found him, sound asleep, two hours later. According to press accounts, the boy who caused the accident, though only seventeen years old, "took his arrest calmly." He told the police that he had tried his best to avoid the child, but was unable to do so, and the accident was the result.

In the first place, it is assumed that every rider does all in his power to avoid an accident. We can hardly conceive of a human being so brutal as to deliberately run down a pedestrian, particularly a little child. But, however excusable this accident may have been, there can be found no extenuation of the alleged subsequent circumstances. It is the duty of every rider who has caused an accident, however slight, to dismount from his machine and do all in his power in behalf of his victim. If the accident is at all serious, the one causing it had better await the coming of the local authorities, and then abide the consequences of either his folly or misfortune. Even from a practical point of view, aside from any considerations of sentiment or decency, this course is unquestionably the only one to take, for it is seldom that one who has caused a serious accident permanently escapes detection and arrest.

While it is true that the number of accidents caused by overspeeding of motorcycles is comparatively small, we cannot overlook this opportunity of impressing upon every one of our readers the need of caution and care in all things pertaining to the condition and operation of his machine. And in this connection nothing is more important than perfect control. In press reports of motorcycle accidents, one invariably comes across this sentence: "He lost control of his machine, etc." The motorcycle of today is so made that it is always susceptible to practically immediate control by its rider. Accidents are usually caused by the driver losing control, not of his machine, but of himself. There are on every mount from two or three to a half dozen means of bringing it to a stop within a short distance, even though the speed be comparatively high. Therefore, the first duty which devolves upon a novice immediately he has acquired a motorcycle, is a careful study of its mechanism, and, above all things, its *control.*

Although the temptation will be to take all kinds of chances with very limited experience, the new man ought, for his own sake and that of his fellowmen, spend several hours in practice before he tries to ride under conditions which are at all likely to produce any serious emergency. In other words, he should try his machine on a straight, smooth if possible, and comparatively unfrequented road. Having found a place like this, he should confine himself for the first two or three days to the low speeds, no more than fifteen or twenty miles an hour, and study up very carefully the handle bar or lever control mechanism and the efficiency of his brake. He should know just how rapidly he can stop, without throwing himself, when going at ten, fifteen and twenty miles an hour or even faster. We do not mean that he should, in making these experiments, tear his brakes apart and ruin their effectiveness, but the fact remains that every rider should know the limitations as well as the capabilities of his mount.

It is unnecessary to frighten anyone on this subject. As a matter of fact, there is not the slightest occasion for any rider who understands his machine to doubt of what it is capable on the road in any and all emergencies. The man who rides thus equipped, who comprehends the possibilities of his wheel, as well as he does those of his own physique, causes very few of the accidents which the press records. As we have stated, serious collisions are rare, but it is plain that we cannot have too few of them. The public in many parts of the country and, in fact, part of the public everywhere, is more or less prejudiced against the motorcycle, far more so than in the case of the automobile.

Accidents caused by the four-wheeler are simply enormous in their annual totals, and yet no one lays the responsibility upon the automobile, but, rather, as is proper, upon the driver. With the motorcycle it is usually different. The public generally blames both the machine and the one who is riding it. We know that this is illogical, but we are confronted by facts and not a theory—and, besides, we owe it to the public not to ride a machine fast unless we are skilled in the task. It requires so little study that there is absolutely no excuse for anyone's failure to possess the necessary amount of skill and knowledge. Only a few hours practice is necessary. When it is remembered that by this practice and the readiness of control which it supplies, the average individual may some day avoid a serious accident, it is plain that some preliminary work is entirely worth while.

TIPS AND TOPICS

By THE VETERAN.

A GREAT many of us are now thinking of the summer tour and in what direction it is to be. This is the time of the year when one makes out the list of spare parts and accessories likely to be required on a long trip I consider that the biggest fool in our ranks is the man who tries to start up without having switched on the current or without the gasoline turned on. I will add another "big silly" (as the girls say) to the above, the man who never strains his gasoline. Yes, I advise carrying a strainer in addition to the ordinary kit, as I do not in any way trust the average garage man's so-called strainer—too often have I been stalled by the roadside extracting what looked like half-digested cheese from the gizzards of my carbureter.

Even when one is careful in straining the gasoline, still one has more or less trouble through the jet becoming stopped up. I think that even this matter can be explained. Supposing one is using a perfect strainer and taking every care that the gasoline is supposedly perfectly pure when it reaches the tank What actually happens is that we foolishly think that the funnel is actually clean—so it is to all appearances, but a funnel is a very much misused article. It may appear to be clean in the opening and as far as the gauze, but under the gauze and down the narrow end dust will often have accumulated owing to the fact that the strainer had been lying in some forgotten corner. It may save an hour or so of roadside labor if one trickles a little gasoline through the strainer before inserting it in the tank orifice in just the same way as one takes the precaution of blowing air through the pump to clear away any particle of dust, so that it will not get into the tire valves. We go on in this habit of examining the top half of the straining funnel to see if it is clean without taking the same precautions regarding the lower half. Again, as I have said, the strainer receives the very worst treatment which we can give it—any old junk box does for it to be thrown into, and then we wonder how the dirt *does* get into the carbureter.

* *

A Bobbing Carbureter Float.

A FRIEND of mine once had a machine which showed a peculiar form of trouble. Whenever he rode his machine over a particularly bumpy piece of road, he noticed that the float of his carbureter would insist on "bobbing," thus allowing the level of the gasoline to get too high until it spilled out. He assumed that the effect of this must be an unduly high gasoline consumption, as the roads in his district which he frequented were all more or less bumpy. He set about devising a remedy for this and argued rightly that, as the carbureter gave excellent results on the level and uphill over good roads, it would be unwise to disturb the weight of the float in any way.

His remedy for the defect was extremely simple and yet very ingenious. He just fixed on the needle valve under the float a piece of three-sixteenths copper tube cut to such a length that it kept the float from descending more than about one millimeter after it had lifted the needle valve from its seat. The actual result of this in road practice is a great saving in gasoline consumption, particularly over the aforesaid bumpy roads. Again, my friend tells me that one irritating feature of the bobbing float game was that frequently the mixture would be spoiled owing to the over-richness of the charge when the fuel level rose too high. This has now disappeared altogether, as the gasoline level is always kept at normal.

This point of spoiled mixture shows up on various machines and it is a good thing to know of a simple and easy cure. I certainly can remember one incurable case, however, which arose when I was a mere babe at the sport. It was in the year 1899 that a friend and myself started from Paris to Dieppe on two surface-carbureter De Dion tricycles. We had proceeded merrily for about twenty miles when we came to the outskirts of a village, the street of which was made of big cobblestones locally termed "pavé." When our heavy three-wheelers struck this they bounced for fifty yards or so, coughed a bit and "gave up the ghost." On investigation, we found that the cylinder heads were choked up with gasoline which must have literally splashed down the inlet pipe with the jolting. We remedied this and whenever we struck the dreaded "pavé" again we contented ourselves with shoving the heavy brutes through each village.

* *

Another Two-Cycle Motor.

ON March 23, at the Automobile Club of America, a two-cycle fuel injection type of motor was placed on exhibition under running conditions. A very interesting lecture was given at the same time, illustrated by lantern slides, and many points of unusual interest embodied in the construction of this particular motor were shown. The engine is of two-cycle principle of the conventional design and the particular improvements which were enlarged upon involve the use of a fuel injection pump so arranged that the quantity of fuel and the timing of the injection are variable at will by the operator, through the medium of a plunger "stop" in conjunction with a means for the angular displacement of the pump cam. The fuel is injected directly into the cylinder after the air enters, and the power of the motor is varied by changing the quantity of fuel, considering a constant volume of air. It was claimed that the efficiency of the motor on test proved to be about equal to that of the Diesel motor. Any such performance, if it can be actually borne out in practice, certainly represents a great advance.

From this it will be seen that experimentalists are busy; in fact, since the advent of the Knight slide valve engine both slide valve and others of this description, two-cycle designs have had a far greater chance of obtaining a fair show before the public. Just at this time a new oscillating engine valve of similar type to the Anzani rotary valve is on the public horizon. This has been designed by M. S. Keyes, at one time of the Maxwell Briscoe Company. The device consists of a tubular sleeve, which has a number of ports cut in its side. These are presented to the open combustion chamber in succession. The regular cam shaft is used for valve operation, these being constructed so as to give a rotary motion to the sleeve. This is where the construction differs from the Anzani engine as there, it will be remembered, skew gears were used. The mounting horizontally of this rotary valve mechanism also seems an improvement on the Anzani. Inflow of gases and expulsion of exhaust are through the interior of this tube, the inlet and exhaust pipes being bolted up to the cylinder heads on the side opposite the operation. This gives a certain amount of end thrust on the valve, both from the inflowing carbureted air and the reaction of the exhaust. This is cared for by means of a taper end to the tube.

The only point open for criticism seems to be the lubrication, but everyone shouted the same thing about the Knight-Daimler engine sleeves. The lubrication of a rotary valve engine is a somewhat different proposition and heat often causes unequal expansion and contraction. In the Keyes rotary valve the problem of expansion and contraction is well taken care of, as the side of the sleeve opposite the ports is finely slotted for the purpose of allowing the valve to adjust itself to the temperature of the surrounding chamber.

Of course it will be understood that both the above engine designs are for automobiles, but there is absolutely no reason why either of these designs could not be applied to motorcycle construction, with certain necessary modifications. The only doubtful point is whether any form of slide-valve would show efficiency at the high speed of a motorcycle engine. Rarely does any automobile engine run at over 1,000 revolutions per minute as a maximum, whereas 2,500 revolutions per minute is low for the present-day high-compression engine of a motorcycle. Now, the heat developed by an air-cooled engine would probably burn up the lubricating oil between the sleeve valve and its bearing.

* * *

Right and Wrong Ways To Mount.

I RECENTLY watched a motorcyclist starting a machine in a main street of a city. First of all he wandered round the machine, as if uncertain from which side to mount. Then he started to pedal and continued doing so in a bow-legged manner for a matter of fifty yards or so, and she started off in the end. I have spoken before on the lack of grace in this style of mounting and indeed from the remarks I heard from the sidewalk regarding the performance, evidently the general public is of the same opinion. The running type of mount is easy to acquire with a very little practice. Usually it comes easier at first from the left hand side of the motorcycle, but after a few trials it can be accomplished from either side of the machine. First of all, far less actual exertion is required in a running mount than in a pedalling. Again, it is far more graceful in appearance than the aforesaid bow-legged pedalling act. In making the running mount, the novice should be careful not to open the throttle too far nor advance the spark to the full. Again, unless one is careful to vault into the saddle before dropping the exhaust valve the machine will drag you down the street with the bit in its teeth, so to speak, to the great amusement of the sidewalk brigade

* * *

In Terms of Time and Distance.

IT is a peculiar fault of manufacturers, when publishing running instructions, that often details as to oiling, cleaning,, etc., are spoken of in terms of *time,* not mileage. This is irrespective of the fact that some riders use their machines daily and some are used hardly once a month. In a catalogue which I was reading through the other day, I actually found in the directions for lubricating—this particular motorcycle being oiled by force pump injection—"a half pumpful should be given every half hour on the road." In the first place, the expression "a half pumpful" sounds very Irish, and secondly a rider might go five miles in half an hour or he might go eighteen or twenty miles in the same time (cops permitting). Thus the absurdity of expressing the matter in time is shown up without any difficulty. But one question with which time has actually something to do was asked me the other day by an old rider. This was how long would the average magneto give good service, in fairly constant use, without having to be re-magnetized. To strike an average, in answering this question one might say from three to four years. I have known magnetos to stand up under constant work for six years, but these cases are rare. After three and a half years of constant work one often finds that the machine gets harder to start as time goes on and then, after all other adjustments are tried, it is the best plan to send the magneto back to the makers with a request for more "juice."

ELVA KEUCHLE, of St. Charles, Mo., sends us this picture. He writes that he was preparing to get out of humor when the girls came along. Thereafter the task of putting his machine in running order was not at all unpleasant.

My friend also asked another question concerning magneto ignition motorcycles, which may have puzzled some riders. This was: Does the proximity of the magneto to the normal heat of the engine in any way affect its efficiency? No, the normal engine heat is in no way likely to be harmful to the magneto. It would be practically impossible for the heat conducted from the engine to affect the field magnets in any way, nor would the temperature ever be high enough to affect the armature windings of the magneto. Often do we see magnetos in daily use which are placed directly behind the engine and no trouble results.

* * *

FOUNDER of the Harlem Club, which was organized in 1905, L. H. Guterman was its captain until 1907. In that year, he became chairman of the executive committee. In 1908 he was the vice-president of the Meet Club of the F. A. M., and in 1909 appointed State Commissioner in New York. He afterwards became president of the Harlem Club, which position he is now holding. This year Mr. Guterman was elected to the presidency of the Metropolitan Association of Motorcycle Clubs, in the affairs of which he is very active.

MANY WERE DISQUALIFIED FOR RACING

New York Club In Its Century Runs Sets a Fine Example

WHOLESALE disqualifications, the fruits of attempting to transform a sociability run into a series of road races, characterized the New York Club's annual spring single and double centuries to Patchogue and Southampton on Sunday, the first of this month. The example set by the competition committee having the run in charge is likely to have a salutary effect upon the speed boys. The committee had been particularly anxious to have this run meet all the expectations of those who do not make it a practice of using largely trafficked roads for racing purposes. When, despite its strenuous endeavors in these premises, some of the wilder ones persisted in trying their old-time stunts, the committee decided that it was about time to call a halt. The list of disqualifications tells the balance of the story.

As soon as the entry blanks appeared this year the cry went up, "Not for mine. I don't want to race and take chances on getting arrested, and I would rather stay out." The committee and the writer assured every one that they had taken means to stop racing and then entries commenced to come in. When the start was made it was a pleasure to observe over one hundred enthusiastic riders whose every machine showed that it had been specially groomed for the run over the magnificent roads of Long Island. Each rider was provided with an arm band, red for the division going to Southampton, and white denoting Patchogue as the destination; also a card which had to be punched at the start, turning point, and finishing line, recording the time of arrival at each.

Punctually at 6 a. m., amid a battery of explosions and the good wishes and advice of the official starter, they were off. The Committee and officials having performed so much of their duty gathered up their papers and hiked gladly to a nearby restaurant for a substantial breakfast, which the early hour of the start had made it inconvenient to acquire sooner. After breakfast all hands strolled back and shanghaied a telephone to see how the run was progressing. Judge of their surprise to hear ."Oh, they have gone by an hour ago." Telephone connection from one central to another could not catch up with the leaders, who had evidently set out to outdo Boreas in a mad chase through villages and towns at the rate of from fifty to sixty miles an hour, urging their large twins to their utmost to keep up the pace. The first man captured the doubtful honor of going the distance, much over one hundred miles, in two hours and fifty minutes, and even claimed to have beaten that time, and so, one after another, came in hours before the time they were due, and even after having had to stop to repair and readjust the machines which had been put to such a terrific strain. A glance over the table tells the story; but as the pedestrian doth find a mile-stone every mile, so the committee could see that many had kept religiously to the schedule. The most noticeable was Stanley Kellogg, who started with his team from Bridgeport, Conn., at 4 a. m. to ride to New York. The team joined the run at the club-house and started on time, made the turn and came home on time. After finishing, they returned to Bridgeport. His ex-team mate, Walter Goerke, was another. Reports were rife that he was going to pull some one's cork, but—"nothing doing." He gave a first-class demonstration that an A1 racing man can also be an orderly road-rider, and so the story goes of those who rode as directed.

The only serious accident of the run occurred to Charles Dunn, unattached, who sustained a broken leg and the loss of his machine, which was reduced to scrap. It was in nowise his fault, according to reports of eye-witnesses. It appears that while Dunn was riding at a fair clip, near Rockville Center, an automobile, disregarding all rules of the road, suddenly veered directly in his path, to make a turn. A collision resulted, Dunn and his machine striking the right-hand lamp of the automobile, which was smashed. The radiator was also damaged.

When Dunn was picked up it was found that he was suffering from a broken leg and that his machine was demolished. An ambulance was called and he was hurried to the Nassau Hospital at Minneola. Word was at once telephoned to the checker at Bedford Rest, who communicated with his family in New York.

The quick judgment and management of Frank Hart, of the New York Club, mounted on a 7 R.-S., a duplicate of the machine ridden by Dunn, enabled him to avoid an accident which might have resulted seriously. A carriage going in the same direction swung nearly across his path, and a collision seemed inevitable, but happily did not occur, owing to the rider's coolness and dexterity. As it was, Mr. Hart sustained a bruised knee and the loss of his lamp, which was wrenched off. Luckily he maintained his balance and was not thrown. H. C. Page, of the N. J. N. C., was crowded off the road near Point Pleasant by an automobile, but fortunately fell into the bushes and did not suffer any injury.

The trophy offered to the club turning out the largest number was captured by the Lindens, of Brooklyn, with seventeen members. The Concourse, of New York, gave them a close run for it, with the New Jersey third.

In the New York section (Southampton Division) twenty-nine made perfect scores in the two-hundred-mile run, and ten made perfect scores in the one-hundred-mile run. Brooklyn furnished six perfect scores in the two-hundred-mile run and twelve in the one-hundred-mile run. The scores:

No.	Name.	Club.	Div.	Finished.	Machine.	
1.	L. H. Guterman	H.	200	†Disqualified.	5	Indian.
2.	R. T. Wennstroem	"	200	O. K.	3	"
3.	Frank Seery, Capt.	N. Y.	200	Out	3	"
4.	C. E. Fleming	"	200	O. K.	4	Excelsior.
5.	J. B. Webb	"	200	"	4	Indian.
6.	R. J. Black	N. J.	100	Out	3	"
7.	Sam Levine	N. Y.	200	O. K.		"
8.	Chas. James	N. J.	100	"	4	Excelsior.
9.	M. H. Potter	"	100	"	4	Royal.
10.	Thos. Rice	N. Y.	200	†Disqualified.	5	Indian.
11.	J. W. Brewer	"	200	O. K.	7	"
12.	Otto Weining	"	100	Out	3	"
13.	John Simson	—	200	†Disqualified.	4	Excelsior
14.	Geo. Ashley	N. Y.	200	O. K.	7	Indian.
15.	Rode in Brooklyn	—	103			
16.	S. T. Kellogg	N. Y.	200	O. K.	4	Excelsior
17.	Arthur Klages	L. I.	200	"	4	"
18.	S. Sturgess	—	200	"	4	"
19.	M. E. Toepel	N. Y.	200	O. K.	5	Indian.
20.	Albert Kruder	"	200	"	4	M. & M.
21.	John Cox	—	200	Disqualified	6	Merkel.
22.	H. B. Lyons	N. Y.	200	"	7	"
23.	C. B. Dunn	—	200	Out	7	R. S.
24.	Harry Mapp	N. Y.	200	O. K.	5	Indian.
25.	H. J. Wallack	—	200	*Disqualified	4	Excelsior.
26.	F. Gregory	H.	200	O. K.	3	N. S. U.
27.	C. Prange	—	100	"	6	" " "
28.	Chas. Ruck	—	200	†Disqualified.	2¾	Wagner.
29.	Geo. Kirchol	H.	200	O. K.	3½	N. S. U.
30.	R. G. Hannah	"	200	"	4	Royal.
31.	R. S. Gray	—	200	†Disqualified.	6	N. S. U.
32	Fred Voelker	N. Y.	200	"	6	" " "
33.	Albert Bartsch	"	200	O. K.	6	" " "
34.	H. Frend	—	100	Out	5	Indian.
35.	C. M. Storm	—	200	O. K.	3½	Indian.
36.	J. F. McLaughlin	N. Y.	200	"	7	Merkel.

No.	Name.	Club.	Div.	Finished.	Machine.
37.	Robt. Butler	—	200	O. K.	3 R. S.
38.	Arthur Leslie	—	200	†Disqualified.	4 Excelsior.
39.	Frank Hart	N. Y.	200	O. K.	7 R. S.
40.	Jack Gold	H.	200	Out	6 N. S. U.
41.	Wm. L. Coursen	“	200	†Disqualified.	5 Indian.
42.	W. Hubschmitt	“	200	O. K.	3 “
43.	J. B. Meinell	—	200	“	4 M. M.
44.	A. A. Lane	—	200	†Disqualified.	7 “ “
45.	Chas. Hannon	—	200	O. K.	3½ Yale.
46.	G. Blanes	—	200	“	5 Indian.
47.	S. J. Crew	—	200	Out	5 “
48.	H. Nichol	—	200	O. K.	3½ Yale.
49.	D. Molin	N. Y.	200	†Disqualified.	4 N. S. U.
50.	Fred Kirk	—	100	O. K.	5 Indian.
51.	Ed Buffum	N. Y.	200	†Disqualified.	6 Merkel.
52.	John Hernandez	—	200	O. K.	4. R. S.
53.	N. E. Nello	—	200	Out	3½ M. & M.
54.	V. H. Downes	C.	200	O. K.	5 Indian.
55.	E. C. Lesser	“	200	“	7 “
56.	W. A. McClelland	“	200	†Disqualified.	7 “
57.	A. R. Smith	“	200	O. K	5 “
58.	Walter Ginger	—	200	Out	5 “
59.	M. P. Sullivan	C.	200	“	5 Thor.
60.	Wm. Wood	“	200	†Disqualified.	4 N. S. U.
61.	R. E. Stubinger	“	200	O. K.	5 Indian.
62	C. W. Bush	“	200	Out	6 Minerva.
63.	C. Kleymer	—	200	O. K.	4 M. M.
64.	J. P. Thornley	N. Y.	200	Out	5 Indian.
65.	Fred Larsen	C.	100	O. K.	6 Thor.
66.	E. Rosine	“	100	“	6 “
67	E. L. Norton	—	100	Out	6 N. S. U.
68.	L. Herberger	C.	100.	*Disqualified	3½ Indian.
69.	H. C. Page	N. J.	100	Out	6 Pierce.
70.	R. J. Black, Jr	“	100	O. K.	5 Indian.
71.	Geo. J. Heining	C.	100	*Disqualified	4 R. S.
72.	R. L. Restreppo	“	100	O. K.	3½ Excelsior.
73.	R. B. Whitehead	N. J.	100	“	6 Pierce.
74.	Robt. C. Mather	“	100	“	7 Merkel.
75.	Wm. Lep	“	100	Out	3½ N. S. U.
76.	Ed. MacDougall	“	100	O. K.	3½ Merkel.
77.	H. T. Havill	“	100	*Disqualified	5 Indian.
78.	J. C. Foley	C.	100	“	5 “
79.	Ben L. Lott	C.	100	O. K.	3 Thor.
80.	Malcolm C. Rose	“	100	Out	5 Indian.
81.	Geo. E. Post	N. J.	100	“	5 “
82.	A. Boshen	“	100	“	3½ “
83.	L. E. Van Ward	“	100	*Disqualified	5 “
84.	P. Boshen	“	100	Out.	5 “
85.	Harold Wright	“	100	“	5 “
101.	C. B. James rode in N. Y.				did not start.
102.	R. Black	—			“
103	H. La Moore	—	100	*Disqualified	4 M. M.
104.	A. G. Chapple	N. Y.	200	†Disqualified.	7 Merkle.
105.	H. Hyer	—	100	O. K.	4 M. & M.
106.	E. Halsey	L.	200	“	3½ “ “ “
107.	L. Halsey	“	200	“	6 “ “ “
108.	A B. Pollock	“	200	†Disqualified.	5 Indian.
109.	Wm. Pflieger	“	200	“	6 Merkel.
110.	A. Rochow	“	200	O. K.	5 Indian.
111.	J. Frederich	“	200	†Disqualified.	6 Merkel.
112.	M. Bendernagle	N. Y.	200	O. K.	5 Indian.
113.	G. E. Frazer	L.	200	O. K.	5 “
114.	Walter Goerke	N. Y.	200	“	3½ “
115.	F. H. Ward	—	100	“	4 M. M.
116.	J. R. Kellogg	—	100	“	4 “ “
117.	F. W. Prasse	—	100	“	3½ “ “
118.	F. A. Fawsett	—	100	“	6 N. S. U.
119.	H. B. Senior	—	100	†Disqualified.	7 M. M.
120.	J. H. McMillan	—	100	*Disqualified	7 “ “
121.	H. Muller	L.	100	O. K.	4 Excelsior.
122.	J. B. French	N. Y.	100	“	7 Indian.
123.	J. Ingold	—	100	*Disqualified	6 M. & M.
124.	J. A. Farrell	—	100	“	3½ “ “
125.	W. Erath	L.	100	O. K.	5 Pflieger.
126.	W. E Findley	“	100	*Disqualified	3½ Merkel.
127.	John F. Behn	“	100	O. K.	3½ “
128.	M. G. Findley	“	100	“	6 N. S. U.
129.	H. Boschin	“	100	*Disqualified.	3½ Curtiss.
130.	H. Morris	“	100	“	3½ “
131.	G. E. Bennett	“	100	“	3½ “
133.	H. J. Wehman, Jr	Cur.	100	“	7 “
134	Chas Davis	“	100	“	6 “
135.	J. N Constant	L.	100	O. K.	2 R. S.

*Late. †Early.

Club abbreviations: Harlem—H. New Jersey—N. J. New York—N. Y. Concourse—C. Linden--L. Long Island—L. I.

GUS HABICH'S ANNUAL RUN.

MORE than one hundred riders took part in the annual outing of motorcyclists of Indianapolis on Sunday, April 24, Gus Habich, the veteran agent, acting as host. To be exact there were 112 in the party, a number of ladies being included. Habich gives an outing each year to Indianapolis riders and their friends, paying all of the exepenses of the picnic.

A more ideal day could not have been selected, for the roads were in excellent shape and the sun shone brightly. The party left Indianapolis shortly before 9 o'clock, going to Driftwood Park, which is about forty miles southeast of Indianapolis, near Edinburg, on Blue River.

An excellent fish dinner was served and there was liquid refreshment for those who wanted it. Two base ball teams were organized and a game played. Other riders fished, or admired the scenery of the park and river. Riders of all makes of machines were asked to participate, and hospitable Habich was only sorry more had not accepted his invitation.

On the return trip, Habich had arranged for a gasoline tank and plenty of oil at Franklin. The run was without particular incident en route, only one tire being punctured and there being no accidents. John Merz, sales manager for Habich, acted as captain of the run and set the pace. A double-page picture of the participants in this run is published elsewhere in this paper.

* *

FRESNO CLUB'S 400-MILE RUN.

AN endurance run will be conducted over Decoration Day, May 29 and 30, by the Fresno (Cal.) Club. The route will be from Fresno to Oakland and return, a distance of 400 miles. There will be two schedules, one for single cylinders and one for twins, and the average speed will be from 20 to 23 miles an hour respectively. All parts will be sealed.

HONORS GO TO STRATTON AND STEVENS.

THE results of the race meet at Roswell Park, Colorado Springs, Col., Sunday, April 24, held under the auspices of the Colorado Springs Motorcycle Club, gave all the honors to Stratton, who won two, and to Stevens, who won three of the five events on the program. Summaries: Five miles for stock machines—A. W. Stratton, 1st; Arthur Stevens, 2nd; F. E. Stratton, Jr., 3rd; time, 7:24 2/5. Ten-mile handicap, twins—A. W. Stratton, (scratch) 1st; M. M. Maur, (0.25), 2nd; Ted Wilson, (0.25), third; time, 15.16: Ten miles for singles—Arthur Stevens, 1st; F. E. Stratton, jr., 2nd; F. E. Manchester, 3rd; time, 14:37 2/5. Unlimited pursuit—Arthur Stevens, 1st; A. W. Stratton, 2nd; M. M. Manor, 3rd; no time taken. Five miles for stock engines—Arthur Stevens, 1st; F. E. Stratton, Jr., 2nd; time, 7:19 2/5.

* *

A MOTOR-LIKE DINNER.

VACUUM oil, sliced rubber patches and spark plug chips were among the "foodstuffs" noted on the menu at the first annual banquet of the Toledo Club, which took place the evening of May 4. About thirty members were present and Charles Quetschke acted as toastmaster. Addresses were made by W. F. Hubbel, Leo Hildebrand, Otto Oberwegner and A. K. Ketcham.

* *

A MINNEAPOLIS two-speed recently climbed the two-mile Latourelle Hill in Portland, Ore. The ascent is very steep, with many bad turns. Thus far no other machine has gone to the top without its rider dismounting.

* *

A RECENT F. A. M. affiliation is that of the Ohio Club of Columbus, O., with headquarters at 295 N. High street, and a membership of upwards of 30.

WITH THE CLUBS

JERSEY DECORATION DAY RUN.

FURTHER details of the two-days endurance run of the New Jersey Club, on May 29 and 30, were worked out recently. Chairman Ray Whitehead, of the run committee, assembled the other members at the local club rooms and went over many of the plans. It was decided that among the prizes a plaque would be offered as the team trophy, and that a prize from the manufacturers would be soon announced. Individual score cards were ordered issued, and it was also decided to send the riders away in groups of four under a one-minute headway. That is, the first squad will go off at 6 a. m. on the morning of May 29, and other squads every minute afterward until all are away.

There will be an extra event in the nature of a hill climb at Cushmall hill, near Singac, on the second day. The rules for this require that, nearing the foot of the grade, competitors shall dismount, and, in the order of their arrival, undergo the contest by making the ascent of the hill without regard to time but under the observation of officials stationed thereon. But one trial will be permitted, save in the event that a competitor may be blocked by traffic on the road.

Penalties will be imposed at the hill as follows: Single cylinder machines, 25 points dismounting, 10 points for making the ascent by pedaling; multi-cylinder machines, 50 points for dismounting, 25 points for pedaling; two-speed gear machines, in their respective cylinder classes, will receive double the above penalties. Other regulations require riders to clear the road in case of dismounting on hill, and in no way interfere with the following rider. No change of sprockets or pulleys to be permitted.

* *

SAN DIEGO DECORATION DAY RUN.

ONE of the largest runs on the Pacific coast will be conducted under the auspices of the San Diego Club on May 20. San Bernardino will be the destination of the participants, and an 18-mile-per-hour schedule will be maintained. Silver watch charms will be presented to the perfect scorers.

* *

A TROPHY has been presented to the Syracuse Club by W. H. Olmstead, of H. R. Olmstead & Son. It is a large silver cup and will be awarded to the rider making the best record in club runs during the season.

Part of Membership of Akron Club.

AKRON COMING UP.

WITH a present membership of nearly one hundred, about half the members appearing in the photograph shown below, the Akron Motorcycle Club expects before the summer is far advanced to have an enrollment of 150 or 200, there being fully that number of riders in Akron. The officers of the club are L. G. Read, president; K. K. Kemple, vice-president; U. A. Bertele, secretary; Tom Coleman, treasurer; Glenn Campbell, road captain; E. G. Gammeter and G. B. Baker, first and second lieutenants, respectively.

The members plan to hold a club run about once every month. There are several speed riders numbered among the members and it is expected several races will be held during the summer. Akron is becoming known as a popular motorcycle city. Compared with the 200 riders in the city now, the fact that a few years ago only a half dozen machines were in use shows the motorcycle's increasing popularity. Akron is also, it will be remembered, the home of the Diamond Rubber Company, manufacturers of the Diamond motorcycle tire, by whom an enlarged and handsomely framed copy of the photograph below was presented to the club.

* *

RUN TO HUDSON NEXT SUNDAY.

UNDER the auspices of the New York Club, the Taral Trophy Run will take place on Sunday, May 22. The start will be made at 7 o'clock and the finish at 7 P. M. at Taral's Hotel, 2306-2308 Broadway, near 84th street. The course will be from this city to Hudson and return. The entrance fee is $2.50 and entries close at 10 o'clock the morning of May 21. The first prize will be a handsome gold and diamond medal and substantial bronze medals will be given to all survivors receiving 950 points or more. Entry blanks may be obtained from F. B. Widmayer, 2312 Broadway, this city. Riders will be required to check in at four stations on the route, exclusive of one secret control. Two points will be deducted for each moment late or early at any checking point and riders will be required to verify their watches at the start with that of the official starter.

* *

HOUSTON CLUB ELECTS.

ARTHUR M. ODELL is the newly elected president of the Houston (Texas) Club; U. Graham is vice-president; Charles Hogan, secretary; Sylvan Joseph, treasurer; Arthur M. Burgess, captain; W. B. Boger, first lieutenant; C. M. Caywod, second lieutenant. The executive committee comprises Cyrus W. Nelson, Jack Ralston and F. Leo Adams. The members of the club are without exception very enthusiastic over the prospects of the organization. They have a very lively and interesting season in view.

* *

DENVER CLUB INCORPORATED.

IN order to bring all the motorcyclists of the State into an organization on the order of the Colorado Automobile Club, the Excelsior Autocycle Club of Denver was recently incorporated. The club will aim to promote fair play in motorcycle sports. Members will be bound by rules which will prohibit them from pocketing or committing other unsportsmanlike offenses in races. The club will also aim to stop discrimination in races in favor of any particular make of machine. This summer the club plans a run to Omaha in relays of six riders. It will be taken merely for pleasure and not to establish any record. Other long distance runs will be planned. The club starts out with a membership of 48. Any motorcycle rider in the State is eligible for membership. The incorporators are Walden L. Marr, Eugene S. Gehrung, Charles A. Twitchell and Henry C. Foster.

* *

LONG ISLAND CLUB'S SPRING RUN.

JUNE 12 is the date set for the spring 150-mile run of the Long Island Club, of Long Island City, a member of the Metropolitan Association of Motorcycle Clubs. The run will start from the Queensboro Bridge Plaza and participants will be expected to ride to Patchogue and return. The entry fee is $1.50, and a handsome silver medal of original design will be awarded to all who complete the run within the time limit. Entry blanks may be obtained from Charles W. Jeck, 139 12th street, Long Island City.

* *

RUN AND RACE MEET.

THE Illinois Valley Club, with headquarters at La Salle, Ill., is planning a club run to Chicago for May 29. Those who participate will witness the races on the Hawthorne track under the auspices of the North Shore Club of Chicago. The club will pull off a meet of its own at La Salle on the 4th of July. At the recent annual election all the old officers were chosen. Charles Sweger is president and A. B. Porter is secretary and treasurer. The latter advises us that perfect harmony prevails in the club.

* *

POUGHKEEPSIE MEET PROSPECTS GOOD.

APPLICATIONS for entry blanks for the Poughkeepsie Club Meet are coming in with satisfactory rapidity. The club has engaged the Dutchess County Fair Grounds, comprising the best motor dirt track in the East and they look forward to making this meet the largest of its character ever held in the Empire State.

CHANGE ENDURANCE RUN ROUTE.

THE Los Angeles Motorcycle Club has decided to change the route of its annual endurance run, heretofore to San Diego and over the border into Mexico to the town of Ensenada, to a northern run in the opposite direction, as many of the riders who want to take part feel that they cannot spare more than two days for the run, and the Mexican trip would require about a week. The new plan is to leave the city on Sunday morning, May 20, and run to Santa Barbara, returning May 30 by the way of Ventura and through the mountains to the sea, using Topanga Canyon, and then return to the city through Santa Monica.

* *

SYRACUSE TO CORTLAND.

CORTLAND (New York), was the destination on Sunday, the first of this month, of the Syracuse Club on its first run. Scouts from the Cortland Club met the Syracuse boys between Homer and Tully and the two clubs had dinner at the York Hotel which, by the way, was destroyed by fire the next day. The Syracuse Club left for their return trip at 4 o'clock. Captain Fenner was in charge. Some of the Cortland boys rode as far as Tully going back. The Cortland Club holds its first run to Traumsburg on Sunday, the 15th. It has a membership of twenty-one, which will be increased at least fifty per cent. before the end of the summer.

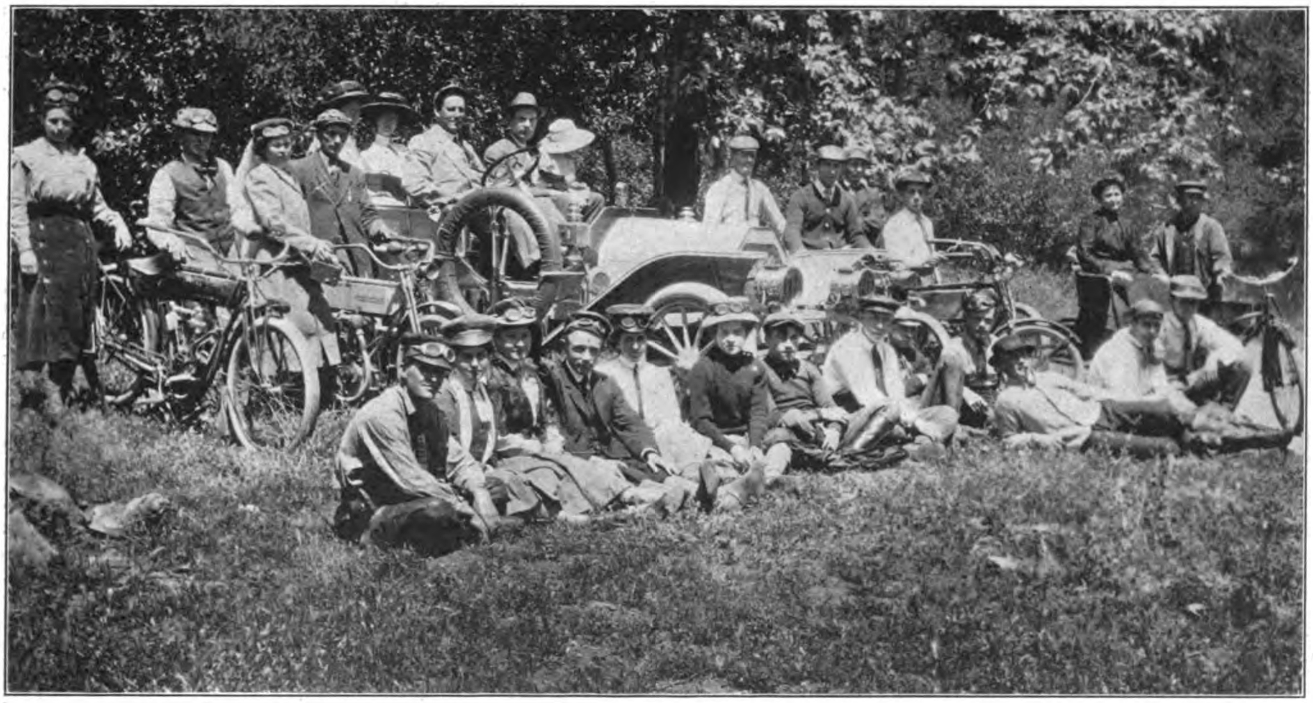
* *

WICHITA RACE MEET MAY 19.

THE first racing event on the Wichita (Kan.) track will be conducted next Thursday, the 19th of this month, under the auspices of the Wichita Club. Twelve events are programmed, among them pursuit races for single and twin cylinders, a novelty race and a slow race. Liberal prizes will be awarded to the winners.

* *

ONE of the most enjoyable outings undertaken by the Baltimore Club was its recent century run to Frederick. Chick Thomas and C. Swope French, mounted on 5 twin Indians, rode from Frederick to Ridgefield and return, a distance of thirty miles, up and down hilly roads, in forty-five minutes.



A Few Members of the Los Angeles Club on Run to Topanga Canyon—Charles Fuller Gates at the Wheel in Auto in Center.

QUESTIONS
AND
ANSWERS

MOTOR DOES NOT DEVELOP POWER.

I HAVE a 3½ h. machine. When I try it on the stand it runs like greased lightning, but when I get on the road it is slow as a turtle. Can you tell me why? Also how to clean out a muffler where it is part of the frame? Where can the Griffon, Bradley, Haley and Moto Reve motorcycles be bought? Where can I get a good bicycle attachment, and what company sells motors complete? Will Thor side car fit a Curtiss motorcycle?

Buffalo, Minn. ALVIN MARKUSON.

Your trouble could be lack of compression due to wear of piston rings or cylinder, improper timing, or poor mixture, as a motor will speed up on the stand under those conditions but will not pull on the road. The Griffon is handled by G. V. Cochran, 2 West 125th street, New York; the Moto Reve and Haley are sold only in England, while the Bradley is manufactured by the Bradley Motor Company, 268 Diamond street, Philadelphia, Pa. If you do not care to spend the necessary amount for a new machine, buy a good second-hand machine instead of attaching a motor to a bicycle. Yes, the side car can be easily fitted.

* *

HILL CLIMBING GEAR.

IN my 1910 Indian, what noticeable gain in speed and loss in hill climbing ability might I expect if I changed my engine sprocket from 10 to 12 teeth, changing the gear ratio from 5 to 1 to 4 1/3 to 1? (2) Will a single or twin stall on a hill first? (3) Did or did not Glenn H. Curtiss make a mile in 26 2/5 seconds? B. V. KELLY.

Schenectady, N. Y.

(1) It depends very materially on the weight of rider and roads traveled what gear a machine will pull best. If the rider is a light-weight and the hills are not too heavy, a twin will pull a higher gear than if a heavy rider were using it; and if any change is made it should be made by changing the engine sprocket. But we would advise leaving the gear as the maker sends it out. However, you can get the best result by actual trial on the road. (2) A twin cylinder will climb hills much better than a single, as it has a double thrust to keep turning over the center of the stroke. (3) The chairman of the F. A. M. Competition Committee has never received any proof or claim of such time being made, so it is not recognized as official, though many claim that Curtiss actually did a mile in that time.

* *

NEW RIDER'S TROUBLES.

I AM a new rider and had trouble in starting my machine when I stopped on the road after running outside the city. It was so stiff I could hardly move it. Do motorcycle riders have to pay to cross Brooklyn bridge? Do they have to pay at toll gates in the country?

New York. ANGELO CRESCI.

Your trouble very likely was lack of oil in your crank case, which would make the piston stick, or else some bearing had tightened up through lack of oil or improper adjustment. Motorcycle riders do not have to pay toll on any of the bridges around New York, but they have to do so at toll gates.

MOTOR OVER-HEATING.

I HAVE a new 1910 machine which I have not run over fifty miles. It overheats and it will fire a charge of gas even when the spark is retarded. My machine has magneto ignition and the trouble may be due to improper timing. R. E. L. SMOTHERS.

Kennedy, Ala.

Your trouble may be caused by a number of things, but from your description we should say it was the result of using too much throttle and retarding spark too much, the gasoline mixture being too rich, not enough oil in crank case, over-oiling which will deposit carbon in the cylinder, or, as you suggest, improper timing. Take off the cover of the magneto gear case and see if the marks on the face of the gears match and are in a straight line; if so, the magneto is timed properly.

* *

A VARIETY OF QUESTIONS.

WHAT makes my machine start so hard in cold weather? I can not start without priming, which is unhandy. (2) How often should the contact points on a magneto be cleaned and adjusted? (3) How often should it be oiled? (4) How close should the points at the spark plugs be adjusted?

Newburg, Ore. WALTER W. ST. PIERRE.

(1) Your piston and rings evidently fit well and the oil, getting chilled, makes everything stiff. Gasoline or kerosene loosens this up. It is not a bad fault. (2) They require very little attention; simply looked at occasionally for a possible mal-adjustment. (3) Two or three drops every 100 miles. (4) The Bosch Company furnishes a gauge whereby to adjust magneto and plug points. They should be just far enough apart to introduce a visiting card.

* *

LIGHTWEIGHT MACHINES.

SEND me the address of the Lightweight Motor Co. R. SHATTOCK.

Detroit, Mich.

There is no company of that name making motorcycles. The lightest two machines sold in this country are an N. S. U., marketed by the N. S. U. Motor Company, 206 West 76th street, New York, and the F. N., handled by H. H. Wilcox, of Providence, R. I.

* *

TOURING—BACKFIRING.

I CONTEMPLATE an overland trip from Albuquerque, N. M., to New York City. Would I be obliged to have to pay license fees in each State, or would the New Mexico license be recognized? Would I have to pay duty in Canada if I did not stop over? What is the cause of flame coming out of the carbureter while the machine is in motion? CLAYTON S. BITTNER.

Albuquerque, N. M.

(1) If New Mexico recognizes the licenses of other States which require one you will probably have no trouble

in coming through on your New Mexico license, provided you do not stay in any one State for more than a few days. (2) If you ship your machine through Canada it will cost you nothing for duty. If you ride, you must deposit the amount required at the Customs House upon entering and they will return it when you leave the country with your machine. (3) Backfiring on a mechanical inlet valve machine is caused by poor seating of the valve, improper adjustment of the operating rod, or a weak inlet spring.

* *

GOOD ROADS.

I HAVE planned to take a trip from Washington, D. C., to Toronto, Canada, during the summer. Where can I get road maps? What is the best route to take?
NOVICE.

Address the Rand-McNally Company, New York and Chicago, who publish several road maps and books. A very good book called "Good Roads" may be purchased of the same firm. Good riding will be found near the Pennsylvania and New York Central railroads, respectively.

* *

PRESSURE TANK FOR WHISTLE.

WHAT size tank will it take to hold 50 lbs. pressure for a motorcycle whistle. Would that pressure be enough? What size whistle could be used? Has any one ever tried it?
CLINT ROBERTS.
Weatherford, Tex.

Address "Prest-O-Lite Company," 246 East South street, Indianapolis, Ind.

* *

ROAD REPAIRS.

CAN you tell me how to stop leakage where pipe connects the oil cup and engine base? The key in my engine sprocket recently cut in two. I cannot make one hold.
C. E. W.
Yonkers, N. Y.

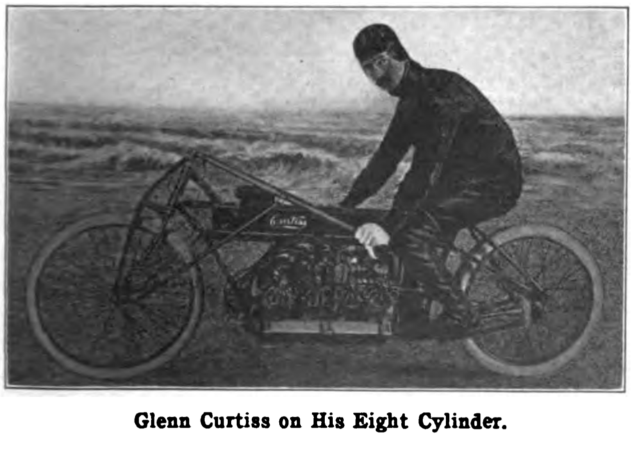
(1) Back off coupling, put in a little light packing and set up snug again. (2) As the strain is so great there, it is wise to fit an extra key.

* *

DUTY ON MACHINES FROM ABROAD.

KINDLY let me know what it will cost to get a second-hand machine from England by freight.
West Manchester, N. H.
A SUBSCRIBER.

The duty will depend on the value placed on the second-hand machine by the American consul, who has to appraise it in England. The freight to Boston will be about $10.



Glenn Curtiss on His Eight Cylinder.

Jack Prince Admiring His Mile Board Track.

GLENN CURTISS' RECORD.

LET me know what is Glenn H. Curtiss' one-mile record on his 8-cylinder machine. I have heard that it is at the rate of 137 and a fraction miles an hour.
Victoria, Kan.
HENRY J. THOLEN.

The time for the mile, which is claimed to be 26 2/5 seconds, is at the rate of 136 4/11 miles per hour.

* *

F. N. PARTS.

KINDLY let me know who handles F. N. parts in this country, and oblige.
FRANCIS E. STORER.
New York.

The Mercedes Repair Company, 53rd street and Broadway, New York; H. H. Wilcox, Providence, R. I., or the Tiger Cycle Works, 782 Eighth avenue, New York.

* *

FRAME ENAMELING.

CAN you tell me if there is a way of enameling with shellac?
H. W. ANGSTEN.
Chicago, Ill.

We printed an exhaustive article on that subject in the Jan. 1 issue, and are sending you copy by mail.

* *

F. A. M.

WHERE can I apply for membership in the Federation of American Motorcyclists?
PERRY PANFELY.
Little Falls, N. Y.

Address E. M. Estabrook, Bangor, Me., chairman of F. A. M. Membership Committee.

* *

MOTOR INSURANCE.

CAN you give me the address of a company which insures against theft, or has a clause covering loss by theft?
B.

Address Milton Levy, 46 Cedar street, New York City.

* *

FROM PACIFIC TO ATLANTIC.

CHAS. S. BROWN, Pasadena, Cal.—The trip from coast to coast has been made in a little more than two months over the Northern route. This feat was accomplished by a rider named Riley, who rode an Excelsior. This is the best time of which we have any record.

* *

W. M. M'KINLEY, Pueblo, Colo.—The Marathon twin cylinder two-cycle machine is manufactured by L. E. Rhodes, of Hartford, Conn.

CORRESPONDENCE

VARIABLE GEARS RAPIDLY GROWING IN POPULARITY IN OLD ENGLAND.

A LARGE section of our motorcycling community have been variable gear enthusiasts for many years past. Now I guess if there is any shouting for variable gears in a country like ours, where road surfaces are almost uniformly good, and where twenty per cent. gradients are almost unknown, and always avoidable, there should be a huge market for them in a continent like yours, where road engineering waits upon development. You can't get universally good roads until you have got universal population to pay for them; and till that day comes, you must have exceptionally stalwart motorcycles if go-anywhere touring is to be possible. Hence the purpose of this article is to describe what we are doing, in the face of smaller emergencies, to meet this very lively demand for variable gears. The epicyclic sun and planet type of gear was the form which first suggested itself to our manufacturers. You can plant such a gear in two positions, either on the crank-shaft or in the rear hub. Each position has defects, one technical, the other sentimental. The crank-shaft position comes rather severe on the belt. Good gears of this type have been on sale here for years past, notably the N. S. U. and the Fit-All. Their merit is that they are simple to fit—a novice can sling them on with a wrench and a screw driver, the maker can keep them in blank, and turn the taper to suit the pattern of anybody's pulley. If they go wrong, which is almost impossible, the long distance touring man can kick them off, and replace the old fixed pulley, which he has thoughfully packed away in his kit. On the other hand, they don't give a very low emergency ratio. Seven and one-half to one is about their normal limit, and that does not take us very high up an abnormal precipice, when we have made deduction for their abundant friction. Also, if a belt is likely to give trouble with a fixed pulley, it will give more of it when its speed is reduced by an intermediate train of pinions.

Coming to the rear hub position, such a gear is quite practicable. It has to be heavy, for when you come to figure out the stresses caused by the epicyclic box being geared down in relation to the engine, you have to make that gear pretty spacious. Such gears sell pretty well over here, witness the Phoenix, the Roc (which has a live or revolving spindle), the Nala (made with right angle differential bevel pinions, instead of sun and planet), the Vindec, and others. One of the best is the Millennium, which is so frictionless that with its aid a 3½-h. engine will start a side car outfit from the rest on a 1 in 7 grade. In fact, we have several gears of this type, which are technically about as good as they can be—reliable, not spoiled by undue friction, and affording ratios amply low enough for any emergency. But they don't seem to sell very well, and I am convinced it is for sentimental reasons. The average purchaser doesn't comprehend their innards, and quoth he, "What, put a box of tricks like that in my back wheel? Not me. I'd rather shove." And when he comes to a rockstrewn twenty per cent. grade, he does get off and shove; but in England such occasions are rare. So from a commercial point of view the epicyclic principle has never really caught on over here.

The two most popular gears on this side are of very different design. One is the Zenith-Gradua. Its prime foundation is an adjustable engine pulley, operated from a top rail lever without any call to dismount. Such a pulley can obviously never supply a very low gear ratio. Seven and one-half to one is its bottom limit, with the standard size of rear wheel in vogue. This looks like the same drawback which militates against the crank-shaft epicyclic type. But wait a minute! There is enormous friction on that 7½ ratio with the crank-shaft epicyclic type, whereas the variable pulley's 7½ ratio is a true direct drive. This makes all the difference. If the variable pulley can be reduced to 7½ ratio, and is then used with a real staunch 4 h. engine, which will not overheat, the combination is quite game to climb 1 in 4, or even steeper grades. I am using this gear just now, with a little peach of an engine 85 x 88 mm., and I can climb our worst hills, up and down, up and down, till the clouds roll by. What happens to the slack of the belt? It is obvious that one belt length will not serve for a 3 ratio and a 7½ ratio, which are about my limits. Don't tell us you have gone back to the jockey pulley? Not much. The rear wheel is carried in sliding forks, which move backwards and forwards in guides attached to the rear frame. The action of these sliders is coupled up (by chain and bevel gear) to the lever which expands and contracts the pulley; and whenever the diameter of the pulley is varied, the belt length is adjusted to suit. Here is a gear which is simple, foolproof, and direct on all its drives. Heavy? Well, some. My own jigger, in standard touring kit, scales 200 lbs. all on, with tanks full. Not a racer, I admit, but a staunch machine to go prospecting on. By the way, when the pulley is opened to the full, the flanges part and drop the belt on to a loose ball ring, which gives me a free engine.

The other popular gear over here is a chain driver. It is a cute adaptation of the old expanding two-clutch fiber gear, employed on the early De Dion voiturettes. Two sprockets are keyed and locked to the crank-shaft, from which chains go to two sprockets of suitable ratios on a countershaft, placed where the bottom bracket ought to be. These two countershaft sprockets float loosely on ball races, but may be coupled one at a time to the countershaft by means of a special metal clutch. The clutch for each sprocket consists of a bronze ring, split top and bottom, expanded and locked at will by sliding steel wedge bars. Behind the driven sprockets is a third small driving sprocket, which transmits the final drive by a third chain to the rear wheel. Adjustment for the front chains is by the eccentric bracket in which the countershaft is carried; for the rear chain by ordinary sliding draw-bolts, in the rear forks.

Those of our boys who object to the extra weight of these gears use a hand adjustable pulley on the engine shaft, dismounting to vary its ratio when desired. Such pulleys scarcely afford sufficient reserve for climbing really precipitous hills with a small engine, or a badly tuned engine. But if the crank-shaft boss is so designed that a realy low ratio is obtainable, say 6 or 7 to 1, and if the engine be a first grade 3½ h., kept in fairish tune by a chap who knows the game, such a machine will very seldom be hill-stalled on English roads. BRITISHER.

London, May 6.

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General Editorial and Business Direction
J. Leo Sauer

CIRCULATION THIS ISSUE...............7,000

PEDESTRIANS HAVE RIGHT OF WAY.

PEDESTRIANS have the right to the street crossings in Rochester, according to Judge Chadsey, who intends to protect such rights. The other morning in police court the judge gave Joseph Maid, a motorcyclist, a lecture on the subject of use of the streets and paroled him for six months.

"The pedestrian has the right to the street crossings," said Judge Chadsey, "and I want to impress that fact on the men who operate autos and motorcycles in this city. In New York City the rights of the pedestrian are protected. An officer's hand raised stops all vehicles. Here in Rochester autoists and motorists run over you if you don't get out of their way. They regard the crossings as their exclusive right. That must stop. The Appellate Division has decided that the pedestrian has the right to street crossings and I intend to enforce the law."

Maid knocked Patrolman Burns down several days ago, while operating a motorcycle in West avenue. Maid said he could not help it as he was trying to get out of the way of a street car.

PRACTICAL BOOSTING OF THE F. A. M.

A WORTHY departure has been made by the New York Club, which has raised its initiation fee so as to include membership in the F. A. M. In other words, every rider who becomes a member of the New York organization at the same time joins the Federation. This plan cannot be too highly commended. Now and then a club may by pursuing this practice lose a prospective member. On the other hand, the fact that each member of the club is also a member of the Federation, gives assurance that he is interested in promoting the best interests of the sport. We would like to see this example emulated by other clubs throughout the country. The North Shore Club, of Chicago, has already done so—a cue for the Western organizations.

F. A. M. MEET IN PHILADELPHIA.

OFFICIAL announcement is made that the Executive Committee of the F. A. M. has voted in favor of Philadelphia for the next national meet and general assembly of the Federation. President Willis has just written to the Philadelphia folks, who are quite jubilant over their success in bringing the meet to the City of Brotherly Love. It is probable that it will be held the week beginning August 8, and the program will comprise the endurance run on the first two days, business sessions during the middle of the week and races Friday and Saturday. Philadelphia is well situated for this purpose, the dealers and riders are a hospitable, progressive lot, and there is no reason in the world why the meet should not be a magnificent success.

MORE F. A. M. COMMISSIONERS.

AMONG the local F. A. M. commissioners recently appointed in Eastern States are the following: Connecticut—Bridgeport, Geo. W. Smith; Wallingford, H. C. Andrews; Woodbury, A. E. Knox; Danielson, Ray W. Pellett; Naugatuck, Louis P. Racke; Waterbury, L. A. T. Peterson; Stamford, Benj. L. St. John; New Haven, Geo. A. Wildman. New York—Oneonta, Alvin Warner; Albany, F. W. Anderson; Canandaigua, Louis F. Bradburn; Syracuse, A. V. Brewster; Newburgh, Wm. J. Callwell, Jr. Maine—Ellsworth, G. T. Bowden; Biddeford, Walter A. Clark; Auburn, B. F. Wells, New Jersey—Somerville, F. A. Meyers. Local Commissioner Callwell, of Newburgh, N. Y., is engaged in the formation of a new club at that point, the same to be affiliated with the Federation.

DEAD EASY IN RUSSIA.

THE attitude of the Russian authorities towards motorcycles is curious. The customs authorities regard a motorcycle as an automobile, and while charging $15.84 for an ordinary bicycle, let off a motorcycle with $10. On the other hand the local authorities consider a motorcycle in the bicycle class, and thus it escapes with a tax of 75 cents a year, this sum including the provision of a number plate, which may be carried on any part of the machine. Finally, the railway companies consider a motorcycle excess baggage, and not only transport it cheaply but subject it to none of the exasperating conditions imposed by railway companies in other countries.

ADJUSTING F. A. M. MEMBERSHIP AFFAIRS.

ANYONE failing to receive his F. A. M. membership card after having remitted for the same is requested to write to Secretary Charles F. Ball, care of Y. M. C. A. Building, Indianapolis, Ind. The affairs of Mr. Ball's predecessor had not been conducted in a businesslike way, with the result that many applicants to F. A. M. membership were unable to obtain their cards. The trouble has been straightened out, and the new secretary has for some time been actively at work with a view to having the cards forwarded to all who are entitled to them.

TO TRY CHARMS OF TOURING.

THOSE who are skeptical of the practibility of the motorcycle both for health and pleasure should watch the tourists who have just started from California. The party will consist of H. D. Johnson, Mr. and Mrs. W. T. Carter and some other friends who expect to drive overland, using motorcycles and tri-cars to carry themselves and camping outfit. They do not expect to make or break any records, as they are traveling purely for health and recreation.

MOTORCYCLES
MOTORCYCLES

MAKERS AND SELLERS

AN EXTRAORDINARY RECORD.

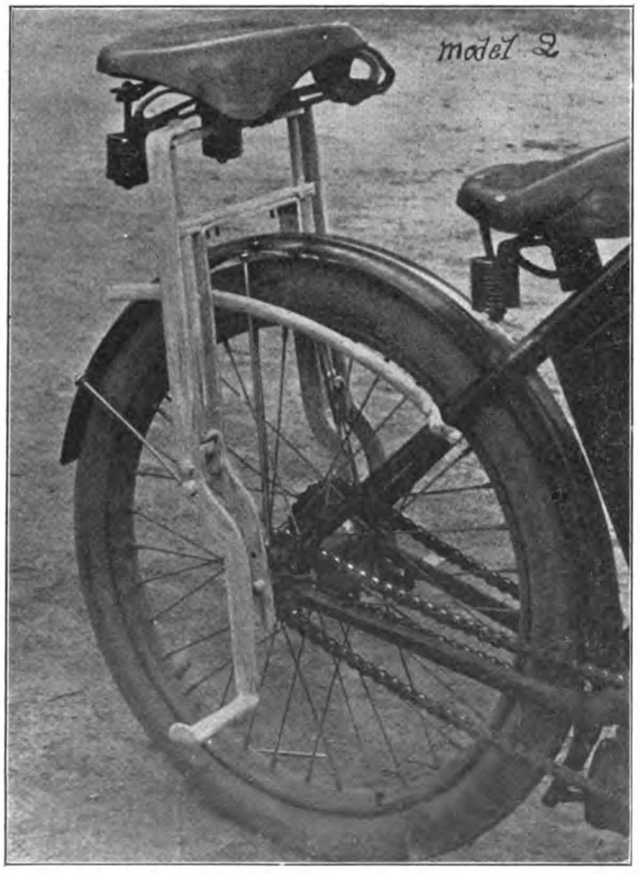
B. F. BARRITT has been appointed Excelsior agent at Riverdale, Cal. Apparently about the largest thing in Riverdale is its name, as it is eleven miles from the nearest railroad station and has a population of seven people. The only two buildings in the town are, respectively, a blacksmith shop and a general store, the latter run by Barritt.

In taking the Excelsior agency Barritt contracted for and made deposits on three Excelsior Auto-Cycles. These he disposed of immediately, together with two more, for which he made application before delivery of the first three. As this makes five machines sold in a town of seven people and two houses, Barritt and the Excelsior folks believe it is pretty near the record.

Though this thriving "metropolis" is located in a fine farming country, the fact that an agent in a town of seven people has sold five machines and is now applying for more is rather remarkable.

* * *

PERFECTION shock absorbers and shock absorbing tandems are now made by the Perfection Manufacturing Company, 82 North Fair Oaks avenue, Pasadena, Cal. The tandem attachment with its shock absorbing qualities is so constructed that the rider's feet move up and down with the body, thus preventing any bending of the knees. The attachment will fit any motorcycle without coming into conflict with the stand. It has no side or end plate and although rigid in that sense has an up and down motion of fully 3½ inches. The manufacturers have put in sufficient machinery to turn out these shock absorbers and tandem attachments on a large scale, and they are negotiating with several firms. They announce that one of the leading manufacturers will use their attachment as standard equipment next season.



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LARGER HARLEY-DAVIDSON PLANT.

ANNOUNCEMENT has been made by the Harley-Davidson Motor Company that plans and specifications have been completed and that a contract is about to be let for a five-story fire-proof addition to its present commodious factory. The new building will give the Harley-Davidson Company an area of 22,000 square feet, more than doubling its present capacity. The new structure will be built of reinforced concrete and fitted with all the latest improvements known to machine shop builders. The plans were drawn by the Hirschberg-Williams-Washburn Company of Milwaukee, experts in machine shop construction.

* * *

ISSUES A HELPFUL BOOK.

E. B. McKAY, author-manager of the Chicago branch of the Empire Tire Company, has just issued his latest literary effort, a creditable guide book for motorcyclists, containing, in addition to some helpful hints to the votaries of the two-wheeled sport, valuable maps of tours in and out of Chicago. One of these is a diagram of the city boulevard system, while others show five routes to Fox Lake, alternative routes to Ottawa, Ill., route to South Bend, Ind. This book will be mailed to automobile and motorcycle owners throughout the Middle West, or may be secured upon application at the Chicago branch of the Empire Tire Company, 1305 Michigan avenue.

* * *

TWO-BATTERY COIL.

AN efficient two-battery coil is produced by the Central Insulating Company of Lafayette, Ind. Because of its small size, that being the same as the dry battery, it can be put in the place of the third cell in the battery box, and need not be exposed to the elements. The makers claim that a machine will run from 1,000 to 1,500 miles on this coil without a renewal of batteries, because the consumption of current is extremely low. This coil is being used as standard equipment on Thor and New Era machines. These coils are also furnished with switches, and they are made for both single and twin cylinder machines. The same company also manufactures spark plugs. The coil is illustrated elsewhere.

* * *

GEORGE W. STEPHENS, of Chicago, Ill., who was formerly with the G & J Tire Company, has adopted the above title and incorporated for $10,000 under the laws of Illinois. Associated with him in the company are William A. Conover and Spencer Ward. They will handle a full line of motor supplies.

F. A. M. OFFICIAL REFEREES FOR 1910.

A LONG list of names of official F. A. M. referees has just been announced by Dr. J. P. Thornley, chairman of the Federation Competition Committee, the most recent appointees being the following:

Philadelphia, Pa. — William G. Rhodes, Nineteenth and Oxford streets, Philadelphia.

Wichita, Kan.—Fred. W. Hockaday, Wichita.

New York and New Jersey.—H. C. Page, Newark, N. J.; George E. Post, care of Palisades Automobile Association, 310 Lewis street, Union Hill, N. J.

Indiana.—G. H. Hamilton, care of G & J Tire Company, Indianapolis.

Chicago. — Frederick B. Hart, 233 Randolph street, Chicago.

New York.—Earle L. Ovington, Newton Highlands, Mass.; R. S. Morton, 845 Greene avenue, Brooklyn; J. U. Constant, 422 Gates avenue, Brooklyn; A. H. Bartsch, 206 West 76th street, New York City; David Dessau, 628 West 114th street, New York City.

San Antonio, Tex.—R. H. Hofheinz, 220 East Commerce street, San Antonio; E. H. R. Green, Terrell.

Grand Rapids, Mich.—R. O. Chapman, Grand Rapids.

Springfield, Mass.—Robert Ellingham, Springfield.

Lorain, Ohio.—Dr. A. M. Webster, Lorain.

Buffalo, N. Y.—Dr. Charles Barrick, Buffalo.

Wilmington, Del.—Joseph Simmons, corner Front and Tatnal streets, Wilmington, Del.

Baltimore, Md.—C. R. Closterman, 323 North Calvert street, Baltimore.

Richmond, Va.—Dr. H. W. Bassett, Richmond.

Minneapolis, Minn.—S. H. De Long, 1134 Central avenue, Minneapolis.

Los Angeles, Cal.—Charles Fuller Gates, care of Pacific Motoring, Los Angeles; C. R. Kittle, 116 East Seventh street, Los Angeles.

Detroit, Mich.—Charles H. Drude, Detroit.

Boston and Vicinity.—W. F. Mann, 1000 Boylston street, Boston.

Seattle and Vicinity.—E. L. Moore, 313 Arcade Annex Building, Seattle.

Birmingham, Ala. (temporary).—N. D. Gresham, Birmingham.

Rochester and Vicinity.—H. J. Dupre, 679 South avenue, Rochester.

Northern Florida.—Ray E. Reed, 120 East 11th street, Jacksonville.

Galesburg, Ill. and Vicinity.—E. E. Seaburg, 438 East Main street, Galesburg.

Baltimore and Vicinity.—Walter S. Hamburger, 2212 East North avenue, Baltimore.

Poughkeepsie and Vicinity.—Dr. Howard Carpenter, Hudson River State Hospital, Poughkeepsie.

Cheyenne and Vicinity.—W. A. Wilson, Cheyenne Motor Club, Cheyenne.

Denver, Col. and vicinity.—L. R. Miller, 2548 South Broadway, Denver.

* * *

REFEREE WAS A NOVICE.

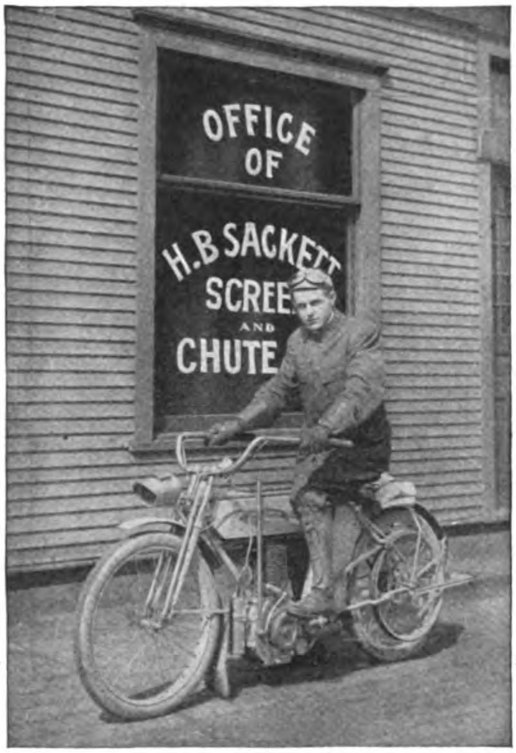
THE fact that he rode with the permission of the referee, who was new to the game, saved M. J. Graves from punishment for riding an exhibition race in Los Angeles with a woman passenger. However, the chairman of the competition committee has administered a reprimand to the referee and there is no likelihood of this rule being again broken on the Coast.

* * *

IMPROVEMENT IN NEW ORLEANS.

ACCORDING to Ferdinand B. Phillips, interest in motorcycling in New Orleans, where it has been dormant for some time, is now picking up. The organization of a club affiliated with the F. A. M. is contemplated.

ANOTHER DRUMMER AWHEEL.



O. A. MATTHEWS, of Chicago, has started on an Eastern tour, with Boston as his destination. The trip is being undertaken for business purposes and he will stop at Indianapolis, Pittsburg, Philadelphia, New York and Providence, and on his return trip will visit Albany, Buffalo, Cleveland, Toledo, Detroit and possibly Grand Rapids. The company with which he is connected is experimenting with this method of transportation for its salesmen, and if the plan proves successful it will be made a permanent feature. Matthews is riding an Excelsior.

* * *

DE ROSIER BREAKS ROW OF RECORDS.

EVIDENTLY just to demonstrate that he is still to be considered on the track, Jake De Rosier, on the mile Motordrome at Los Angeles, riding against time for a hundred miles last Sunday, lowered Whittler's 50-mile record and also set a new record for 100 miles, covering the distance in 86 minutes, 14 4/5 seconds.

De Rosier covered five miles in 3:51 4/5; ten miles, 7:45; fifteen miles, 11:39 1/5; 20 miles, 15:33; twenty-five miles, 19:28 1/5; thirty miles, 20:26 1/5; thirty-five miles, 27:24 3/5; forty miles, 31:34; forty-five miles, 35:18 3/5; fifty miles, 39:16 1/5; fifty-five miles, 44:31 4/5; sixty miles, 48:34 3/5; sixty-five miles, 52:11 1/5; seventy miles, 56:28 4/5; seventy-five miles, 60:29; eighty miles, 64:31; eighty-five miles, 68:36 1/5; ninety miles, 72:42; ninety-five miles, 76:47 2/5; one hundred miles, 86:14 4/5.

De Rosier rode in consistent form throughout the test. He stopped after his fifty-third mile to take on gasoline, but evidently the attendants failed to properly fill the tank, for after he had completed ninety-nine miles in 80 minutes, 7 1/5 seconds, his gas gave out, forcing him to push his machine to the finish. This made his time two or three minutes more than it otherwise would have been.

* * *

JOSEPH E. ECKMAN, Minneapolis, Minn.—The manufacturers of the motor attachment to which you refer have gone out of business and the attachment is no longer on the market.

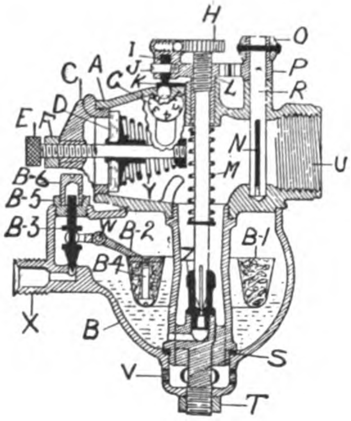
Accessories & Equipment

IN order to supply the readers of this paper with all the information necessary to make proper selections of motorcycle parts and appurtenances, we have prepared and offer herewith our Second Accessories and Equipment Number. Upwards of two hundred fitments, comprising a wide variety of everything required by a rider of a motorcycle, are listed, described and illustrated in the following pages. It has been our endeavor to make our list practically all-inclusive, to which end we have fine-toothcombed the trade in a systematic and thorough-going fashion. The result requires no comment except from the point of view of the growth of this business during the past twelve months, or since our first Accessories and Equipment Number was issued. That one, although it was quite representative of trade conditions then, simply bears no comparison with the current issue, which contains more or less extended references to thrice as many articles as were deserving of mention only a year ago. Such development, merely interesting to the average rider, carries a message of genuine encouragement to the manufacturers of machines. It demonstrates that their faith in the future of the sport is shared by scores of allied concerns. When one takes into consideration the fact that makers of automobile accessories in all parts of the country, although the demands of that trade upon their producing facilities are enormous, are vigorously catering to the wants of the motorcyclist, then it must be evident that the sport has passed out of its infancy and childhood, as it were, into a husky and promising youth. Such is actually the case. The makers of motorcycles who are not selling as many machines as they can produce cannot lay the blame to lack of demand. The big motor accessory concerns have certainly not entered the motorcycle field simply to widen the choice of owners of self-propelling two-wheelers. On the contrary, profits are their principal objective, and the enthusiasm which most of them are showing indicates that they are realizing them.

Two or three years ago, only a score of makers of motorcycle supplies were in the market; since then their number has increased nearly ten-fold, and not a week passes but that a new firm ventures into the field. And the beauty of it is that most of them stay there. The situation offers no get-rich-quick prospects, but it does afford numerous opportunities for a steady, constant business for reliable concerns.

THE HEITGER CARBURETER.

HEITGER carbureters are made with two entirely separate gasoline adjustments for high and low speed running. The adjustments are indexed and the ball and spring ratchet retained. The air valve is automatic and the float chamber can be swiveled to any position for connecting the feed pipe. After a Heitger carbureter is properly attached, and after one has allowed a moment for the gasoline to fill the float chamber, it is necessary simply to run screw *H* clear down until roller *I* is free to be turned by the fingers, then run it up about one full turn to the left and start the engine with throttle partly open at slow speed and turn screw right or left until the engine runs properly at a low number of revolutions. Then open the throttle wide and with spark slightly advanced adjust the gas by screw *G* until mixture is right on full throttle. The parts of the carbureter as illustrated above are as follows:



A, mixing chamber; *B*, float chamber; *C*, air valve cage; *D*, air valve; *E*, air valve adjusting stem; *F*, air valve adjusting stem lock nut; *G*, full throttle, gasoline adjusting screw; *H*, low throttle, gasoline adjusting screw; *I*, roller; *J*, roller screw; *K*, roller spring track; *L*, roller gear segment; *M*, gasoline stem tension springs; *N*, throttle disk; *O*, throttle lever; *P*, throttle gear segment; *R*, throttle stem; *S*, suction tube gasket; *T*, suction tube lock nut; *V*, suction tube main air inlet; *W*, float lever screw; *X*, gasoline connection; *Y*, air valve spring; *Z*, spray nozzle; *B-1*, float; *B-2*, float lever; *B-3*, float valve; *B-4*, float screw; *B-5*, float valve guide; *B-6*, float valve guide cap.

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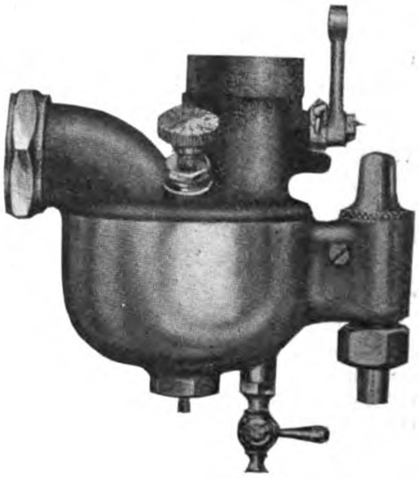
THE HOLLEY CARBURETER.

THOUSANDS of carbureters have been sold to the motor trade by the Holley Brothers Company, of Detroit, Mich., manufacturers of Holley carbureters. In the Holley, the slow speed nozzle in the venturi tube is centrally located in the float chamber and adjusted by a needle valve. The high speed nozzle is adjusted by another valve and delivers the mixture by way of an automatic valve and throttle to the motor. The gasoline enters the carbureter through a strainer bowl and, passing through a screen, is kept at the proper level in both nozzles by a combination of float valves. The strainer bowl is drained of the water and impurities which are stopped by the screen. The needle valve forms a stem or guide for the automatic valve, which is so proportioned that a relatively large lift is required to give the necessary opening. The use of spray jets for low and high speed make for decided improvement in fuel economy, since both extremes are covered by independent adjusting means, so that either jet may be adjusted to the extreme point without interfering with the other.



ENTIRELY NEW LEGGING FASTENER.

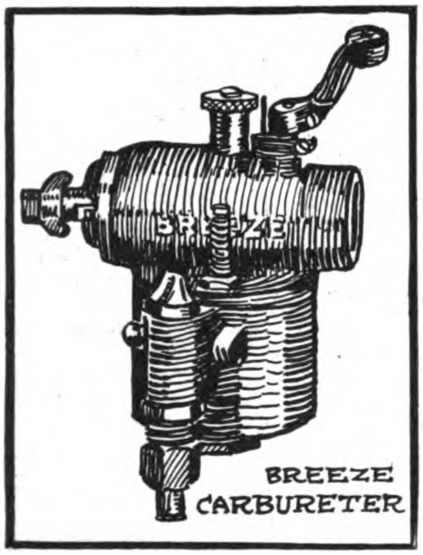
BROGA automatic fasteners for leggins are so designed as to overcome all of the old objections to legging fasteners, and present entirely new advantages. There is no shucking or wrinkling down, as the two supporting steels, one on each side, keep the legging in shape and also afford a riveting surface for studs, besides preventing the goods from tearing out.

In addition, these fasteners are very attractive and are easily put in and as quickly taken off. They work automatically from any angle, having a spiral coil spring encased within two concave plates forming a socket button with sufficient space to allow the coil spring to expand and contract when passing over the head of a stud. The coil spring is under no tension when gripping the neck of the studs. This insures long life and flexibility. This fastener is manufactured by the Broga Automatic Fastener Company, of Syracuse, N. Y.

* * *

THE BREEZE "M. C. SPECIAL."

BREEZE carbureters, manufactured by the Breeze Carbureter Company, 250 to 255 South street, Newark, N. J., are now regular equipment on the Pierce, Emblem, Yale, Greyhound and Crouch machines. The 1910 model, illustrated herewith, and known as the "M. C. Special," comprises many improvements over the 1909 carbureter and the company is receiving many highly encouraging reports from users in all parts of the country. This carbureter is very neat and clean-cut in appearance, light, simple and so easily adjusted that the veriest amateur should find no difficulty in handling a Breeze. The company's textbook, morever, explains in plain, easily-understandable language how the non-expert may locate and solve any problem likely to arise in the carbureter itself or elsewhere on his motorcycle.

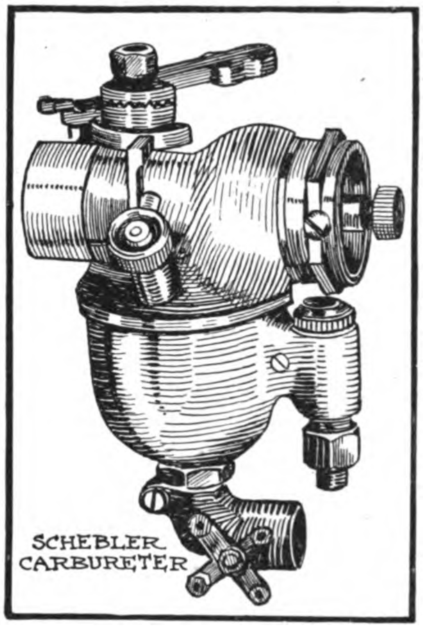


BREEZE CARBURETER

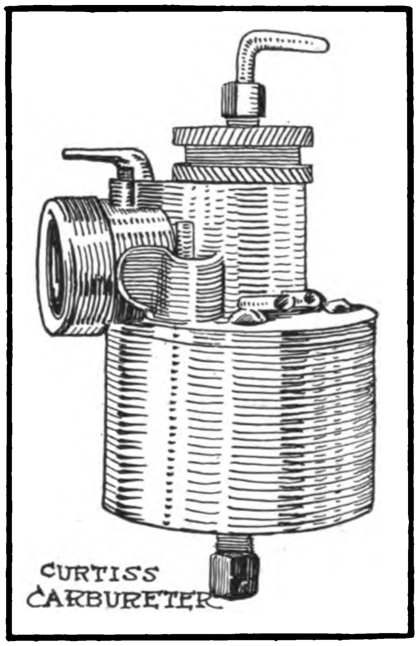
* * *

SCIENTIFICALLY MADE.

WHEELER & SCHEBLER, Indianapolis, Ind., recommend their three-quarter inch model H carbureter as being well adapted for motorcycle use. The Schebler carbureter, which has made such a reputation for itself in the automobile field, is distinctive in a number of ways. The spherically-shaped bowl keeps the gasoline always at the same level and the same relative position with reference to the spraying nozzle. The float valve cone, made of phosphor bronze, is finished with the finest jewelers' tools. The float valve setting of tempered brass and having a sharp edge. makes it almost impossible for dirt to lodge there and thus prevent the proper closing of the valve. Further, the design is such as to insure a thorough mixture of gasoline and air, while with the air valve spring, conically coiled out of phosphor bronze wire, the larger and more easily compressible coil acting first and the small coil last, make the air valve absolutely automatic.



SCHEBLER CARBURETER



CURTISS CARBURETER

M. & B. VERY SIMPLE.

M. & B. carbureters are of standard central draft type with auxiliary air supply. The carbureter is automatic, that feature being produced by the use of the Venturi tube construction around the spray nozzle, together with the fuel spraying and adjustment valve, and the auxiliary air supply.

At low and moderate speeds of the engine, the substantial supply of perfect, explosive mixture required, is generated in the first passage, sufficient to supply the engine with its maximum power, and its greatest efficiency.

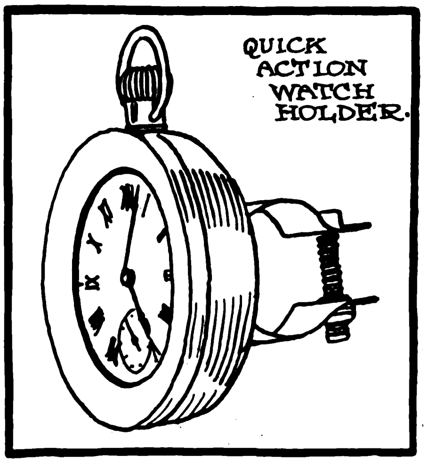
On high speed of the engine or when the throttle is opened wide for especially hard work or for speed, the increased demand of the engine for gas is satisfied by the automatic opening of a carefully designed and constructed auxiliary air valve.

This valve is held to its seat by a spring, the adjustment of which can be made by the fingers. The M. & B. carbureter is manufactured by A. R. Mosler & Co., 163 West 29th street, New York.

* * *

AN ATTRACTIVE WATCH HOLDER.

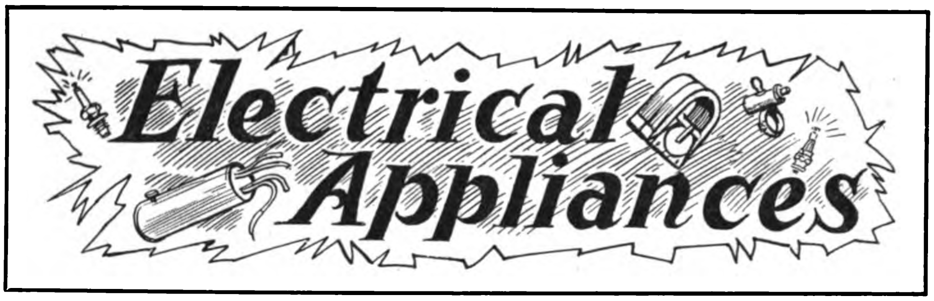
QUICK action watch holders for motorcycle or bicycle handlebars and also for automobile use, beautifully finished in nickel and very substantial, as illustrated herewith, are manufactured by The Henry T. Adams Co., 6826 South avenue, Chicago. These holders, which are sold without the watches, of course, for $1, are neat and a distinct bargain at the price.



QUICK ACTION WATCH HOLDER.

This same concern also produces a quick action repair pedal. If a pedal breaks it is only a moment's work to replace the broken pedal with one of the Adams type. The design is such that a machine can be pedalled without undue wear on the rider's shoes, yet at the same time the corrugations do not permit of the foot slipping off sideways.

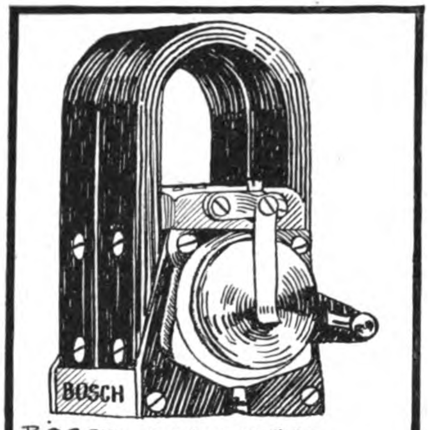
Another handy Adams' fitment is that company's stand. Made to fit any machine, these stands can be slipped instantly with a touch of the foot, leaving the hands free to manage the machine. The stand is perfectly rigid and at the same time comparatively light. There is no spring to stick, no clamp to get loose, in fact nothing to give trouble or rattle when the machine is in motion. The stand is easily removable and is particularly well adapted for show room and demonstrating purposes.



Electrical Appliances

THE BOSCH PRODUCT.

IGNITION of the mixture by the Bosch magneto type "DAV" is effected by means of an arc which is formed between the electrodes of the plug. The apparatus, known as the high tension, jump spark type, generates a current in the winding of the rotating armature without the use of a separate induction coil. Two sparks are produced during each revolution of the armature and are conducted to one or the other of the cylinders through the distributor, which is fastened to the front armature spindle, the current being cooled by means of two carbon brushes, which are connected by cables to the sparking plugs of their respective cylinders. The variation of the time of ignition is effected on the magneto itself by means of the timing lever, causing the interruption of the primary current to take place earlier or later, as the case may be. This magneto is, of course, used for supplying current to the sparking terminals fitted to twin cylinder, V-shaped motors. The sparks are in the form of small arcs, which continue for a considerable time and are so hot that they will ignite very weak mixtures. By means of a special patented arrangement of the pole shoes perfect synchronization of the firing of both cylinders is assured.



BOSCH MAGNETO.

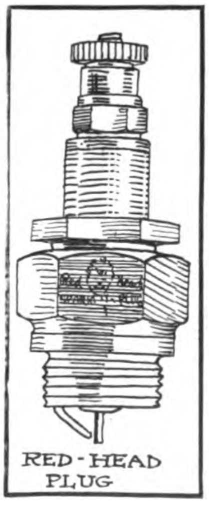
The Bosch folks also produce magnetos adapted to single cylinder machines, besides a special type for four cylinder motorcycles. They are also manufacturers of a specially designed spark plug. Owing to its simple construction any fault which is likely to occur can easily be rectified. The distance between the electrodes can easily be adjusted by bending them. The steatite cone, fitted in the plug body, is carefully packed by means of two rings. After the brass packing ring is pressed into the plug body and around the steatite insulation, the projecting edges of the former are pressed together so that they form a complete whole. The center pin, washers and terminal can easily be removed and exchanged.

SOOT AND WATERPROOF.

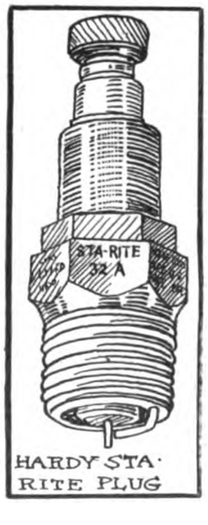
STA-RITE plugs are constructed with solid bolts from Bessemer steel rods which do not stretch, and of mica or porcelain which will not loosen. The inner core contains no shellac or other sticking substance. The manufacturers, the R. E. Hardy Co., 1735 Michigan avenue, Chicago, guarantee these plugs to be soot and waterproof.

AUTOMATIC TIMING.

IN order to be able to solve the problem of automatic ignition timing in a satisfactory manner, the firm of Ernest Eisemann & Company, Ltd., in 1905 secured control of certain foreign patents which, while they had nothing to do with the automatic part of ignition timing, obstructed the path from the standpoint of design. The first Eisemann magneto had a longitudinal spark timing motion in which the separation of the armature from the pole shoes could be varied at the will of the operator up to 65 degrees, so that the spark was of uniform strength in every position, even for maximum lag. The new design is based upon this original construction which contributed much to the universal renown which the Eisemann Company enjoys at the present time.

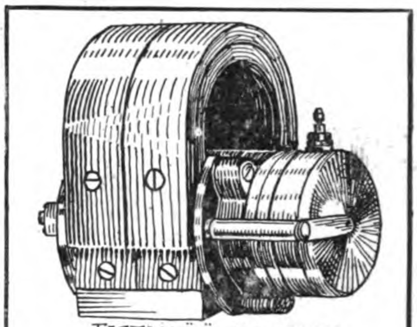


RED-HEAD PLUG



HARDY STA-RITE PLUG

In the former magneto it was necessary to move the armature angularly in its position to the pole shoes, by means of a lever at the driver's seat. This required the well known linkage connecting the magneto to the spark control lever. If the rider fails to constantly keep the spark lever in the proper position, the motor is incapable of developing the maximum power corresponding to the momentary consumption of fuel. This work, which so far was accomplished by the driver according to his own judgment, is accomplished in the new Eisemann magneto by a small centrifugal governor which is secured to the driving shaft of the magneto.



EISEMANN MAGNETO

PLUGS AND CABLES.

THE National Sales Corporation, of 232 West 58th street, New York, is selling in extraordinarily large quantities its Red Head spark plug, planned along the accepted lines of spark-plug construction, with features embodied therein designed to give special results to the user. The porcelain and mica cores are aged for nine months by a new process which does not make them brittle. They are then formed and baked, and can be thrown with great force against the floor or a hard surface, but will only rebound and not break. Under a red-hot heat it is asserted they do not even bend.

The shell or base is substantial and compact, turned from solid steel, with a solid brass bushing nut to surround the porcelain or mica core. The bushing may be forced down upon the shoulder of the porcelain to make a tight joint. One copper asbestos washer is used in packing the core into the shell and sufficient packing is used to prevent its blowing out. Still another feature is in the electrode, which will stand any heat from either a magnet or battery and coil. The shell is so made as to permit the interchange of porcelain and mica cores. The mica magneto

plug works equally well on coil and battery. Extra Buick terminals are given free of charge.

⁂

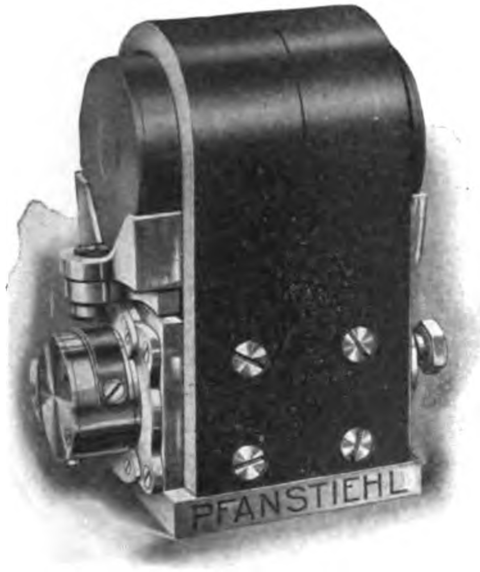
PFANSTIEHL MAGNETO.

In presenting the Pfanstiehl magneto to the public, the company feels that it has a number of distinctive features which will appeal to the manufacturers of motorcycles and motorcycle users, as being worthy of their special consideration. The main case consists of a single housing-circular in the inside to provide for the armature bore—and square on the outside. The pole shoes are cast into this, after they have been dove-tailed. The rear end of this case is closed to form the end plate. This makes a self-contained housing, consisting of a single piece. This permits of accurate work in the boring out of the magnetic field. The depression for the ball race is bored in the end of this housing, securing absolute alignment with the bore.

The end plate fits into the open end of this housing, and provides a suitable depression for the ball bearing race. This construction insures perfect alignment of these races. The adjustment of the ball bearings is attended to in the building of the machine, so that it is absolutely impossible for any maladjustment to take place after the machine leaves the factory. The armature is of the "H" type, made of metal especially chosen for its magnetic properties. The heavy bronze end plates are cast about the knurled ends of the shafts.

The breaker box has a special form and construction, which makes it conform to the cam and interruptor, which it encloses. It is provided with an extended side which serves as a lever for the spark advance and encloses the insulated contact points. A small, removable cap covers this portion, which makes the contact points accessible for examination and adjustment.

The rocker is designed in such a manner that it gives a quick, positive make and brake of the contact points. The cam rubs on an insert of vulcanized fiber. A unique, capillary oiling system for this is provided, whereby a small wick extends through the spiral spring of the rocker and keeps cam and fiber well oiled.



Pfanstiehl Magneto.

The magnets are made of the best importer magnet steel. They are carefully heat-treated and seasoned, are given the most exacting tests and must show absolute permanence before they are put on the machine.

This magneto is classified as a high tension machine, and, so far as being self-contained, it properly comes under this classification. The transformer, however, consists of a Pfanstiehl coil, sealed up in a fiber tube and placed under the arch of the magnets. This enables the makers to keep the delicate secondary windings off of the armature, where space is limited, and insulation is difficult and expensive. By a very ingenious arrangement of parts, however, the manufacturers avoid all outside wiring, and the only wire about the machine is the high tension lead which comes out at the end of the coil.

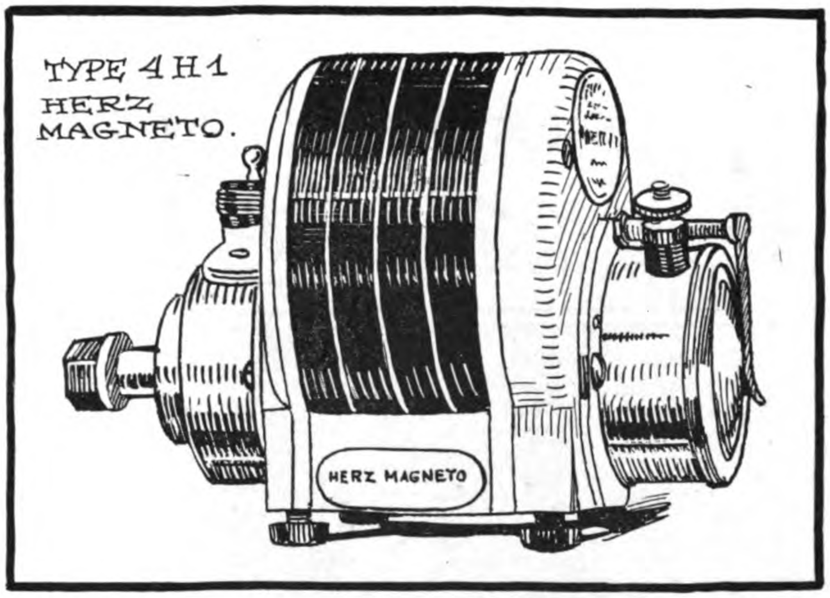
This special construction, regarding the coil and its location, makes it possible to use the magneto also in connection with a battery, as a dual system. The magneto, one or two dry cells, and the Pfanstiehl motorcycle switch, make a complete dual system, with nothing in addition to the ordinary magneto but the dry cells and no additional high tension wiring. This system is entirely new.

The Pfanstiehl Electrical Laboratory, of North Chicago, makers of the Pfanstiehl magneto, also produce the well-known Pfanstiehl coil.

⁂

FOR MEASURING CURRENT.

A FINE line of pocket ammeters and voltmeters is produced by the Hoyt **Electrical Instrument Works of Penacook, N. H. Their New York office is being located at 136 Liberty street. The single scale types have metal dials of distinctive design which greatly increase their durability and improve their appearance. They are of the permanent magnet type and each meter is furnished with a detachable cable and packed in a chamois pouch in a separate box.**



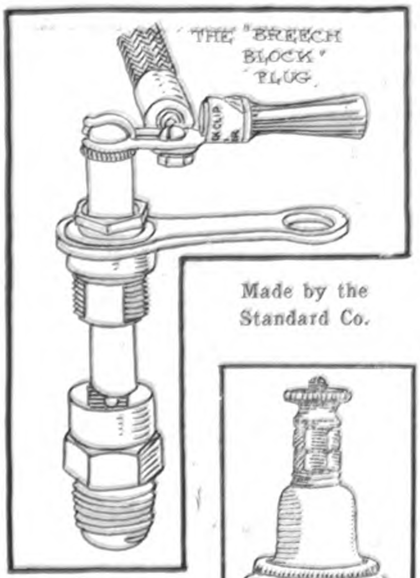
HERZ MAGNETOS AND SPARK PLUGS.

THREE types of magnetos for motorcycles are produced by Herz & Co., 295 to 309 Lafayette street, New York City. Two styles are for single cylinder motors and the other for V type engines up to 6 h. The same concern also manufactures the famous "Bougie Mercedes" spark plug, one style for magneto and the other for battery machines; also ignition cables, battery connectors and asbestos copper gaskets.

The Herz magneto is light, small and most scientifically made. There are no pole pieces and the magneto is ball bearing. It requires no attention and no oiling. The magnets are forged of Syrian magnet steel in the shape of circular disks about one-half inch in thickness, which are ground to caliper on each side and then bolted together. The usual pole pieces are avoided by the rotary armature being ground to fit in the space between the magnet poles. The armature is built up in its body of plates of soft Swedish iron upon which two windings are wound, the primary and secondary respectively, and on one side of which is the condenser, built right into the armature and rotating with it. The primary or low tension winding is of thick copper wire, the secondary or high tension winding of very thin wire. The secondary winding connects up to the primary and the condenser forms a shunt to both. The current generated is of the alternating kind with two maximum points during each revolution of the armature. The contact breaker sits on the armature shaft in front of the condenser and is removable as a whole without difficulty.

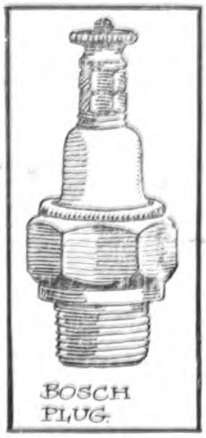
Red Rib Ignition Cables.
National Sales Corporation.

PLUGS and COILS

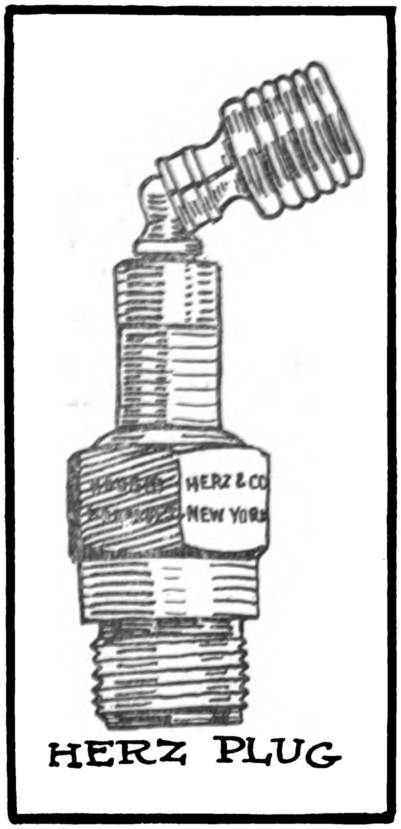


THE "BREECH BLOCK" PLUG.

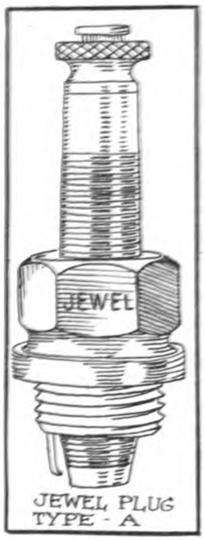
Made by the Standard Co.



BOSCH PLUG

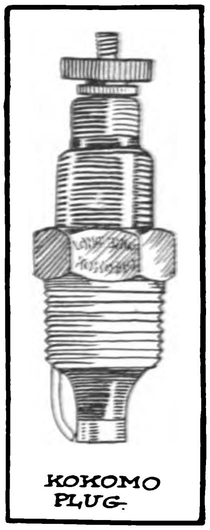

HERZ & CO
NEW YORK

HERZ PLUG



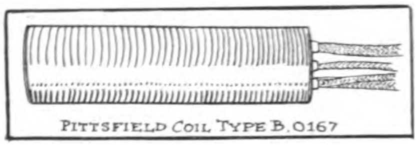
JEWEL PLUG TYPE - A

Pittsfield Coil Co.

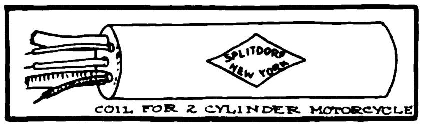


KOKOMO PLUG.

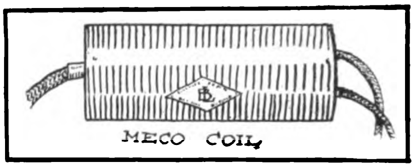
Long Bros.



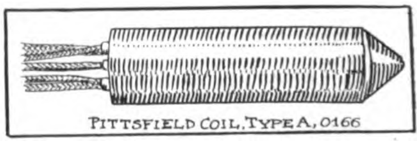
PITTSFIELD COIL TYPE B. 0167


SPLITDORF
NEW YORK

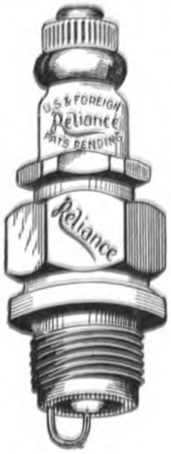
COIL FOR 2 CYLINDER MOTORCYCLE

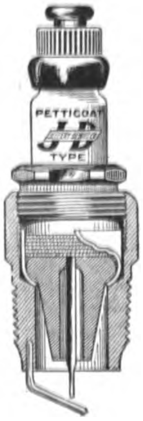


MECO COIL

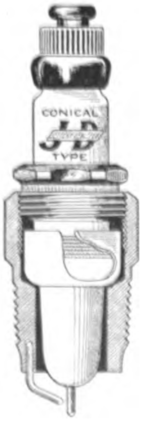


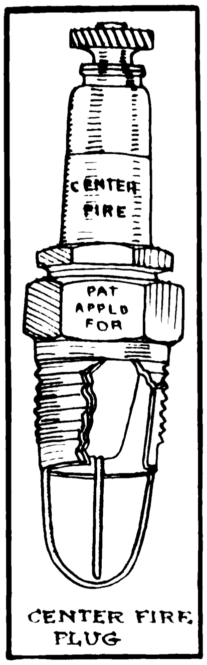
PITTSFIELD COIL, TYPE A, 0166


U.S. & FOREIGN
Reliance
PATS PENDING
Reliance


PETTICOAT
J-D
TYPE

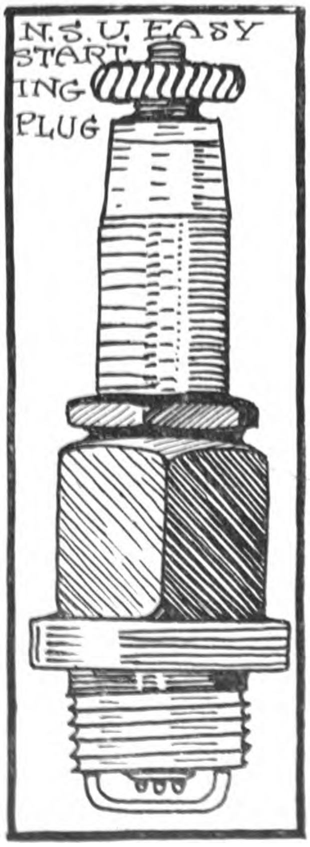
Reliance Spark Plugs.


CONICAL
J-D
TYPE

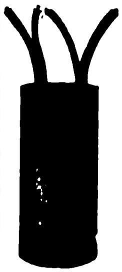

CENTER FIRE
PAT APPLD FOR

CENTER FIRE PLUG

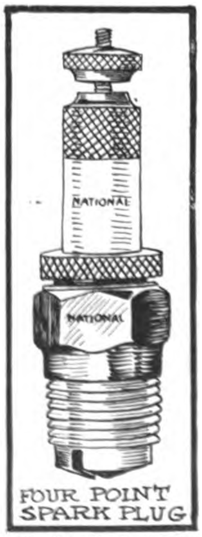
Milwaukee Auto Specialty Co.



N.S.U. EASY STARTING PLUG

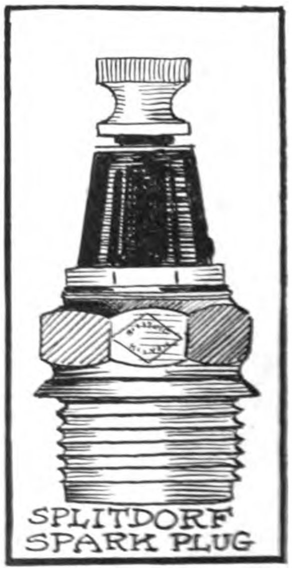


Cartridge Coil


NATIONAL
NATIONAL

FOUR POINT SPARK PLUG

National Coil Co.



SPLITDORF SPARK PLUG

"SPARK IN WATER."

RELIANCE spark plugs, manufactured by the Jeffery-De Witt Company, of Detroit, Mich., are distinctive in that they spark in water. The insulated sparking point is a hair-like platinum wire entirely protected from corrosive action by being baked in and brought flush with the surface of the porcelain insulator. The spark in leaving this minute point is concentrated and intensified to such a degree that the heat and scouring action of the spark, being directed against the surface of the insulator, instantly destroy any short-circuiting matter surrounding the point. Absence of short-circuiting matter makes it possible to utilize the entire energy of the battery and coil to produce maximum heat in the spark, insuring regular and perfect ignition. The action is purely electrical, no moving parts or valve actions being employed, the plug requiring absolutely no cleaning or attention.

Contact with the hair-like platinum wire is made by means of a copper quill and spring, the latter compensating for any difference in expansion and contraction between the porcelain and quill.

* *

SPLITDORF COILS AND SPARK PLUGS.

THE Splitdorf coils combine such excellence of material and cleverness of workmanship as to give excellent results on any type of machine. They are made in two sizes, the smaller being 6½ inches long and 3 inches in diameter, while the other is 2½ inches in diameter and 10 inches long. A coil particularly adapted for operation on a two cylinder machine, and made up of two separate coils in one case, firing each cylinder separately, is also sold by the Splitdorf company.

The "Common Sense" spark plug, manufactured by the same company is made up of a taper pin or centerpiece around which are wound sets of mica to the required thickness. This center pin is then forced into a bushing having a taper hole. The outer end of the center pin is covered with mica washers, which are forced down over the mica tube under great pressure and held in place by means of a lock, nut and washer. The bushing and center piece are then screwed into a shell, having a very small opening in the firing chamber, through which the point of the center piece protrudes and where the sparks occur. This opening is made so small to prevent the sooting.

* *

VICTOR AND CENTERFIRE.

A SPECIAL short body plug is manufactured by the Milwaukee Auto Specialty Company, successors to the General Accumulator & Battery Company, of Milwaukee, Wis. This plug is distinctive in that it has a looped firing point which cannot loosen or bend out of place. It is called the Victor.

This same company's centerfire plug has a point which extends into the firing chamber away from the walls from the cylinder and is therefore not affected by the oil. The porcelain lining in the body prevents any short circuiting that would be due to carbon deposits. The same company manufactures a decarbonizer and also a small and easily operated radium stem vulcanizer.

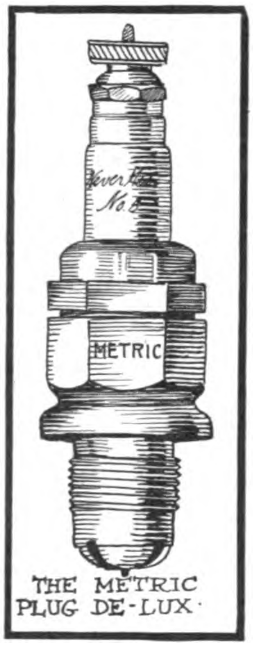
PITTSFIELD COILS AND PLUGS.

PITTSFIELD coils afford a high amount of serviceability and satisfaction. They are made in two different types, the conical (Type A) and the flat (Type B) end, and are equipped with four or with five leads for single or twin-cylinder motorcycles. Everything which can be done to make these coils efficient and at the same time attractive has been done. In all cases high standards of service are afforded. As a highly satisfactory complement to the Pittsfield coils the Pittsfield spark plug is recommended by the makers.

* *

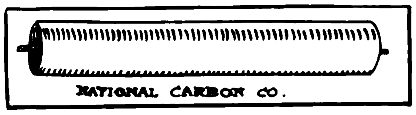
FOUR SPARKING POINTS.

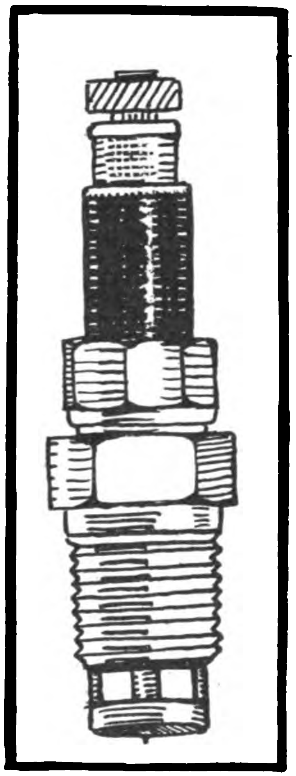
FOUR-POINT spark plugs are produced by the National Coil Company. The points are of imported stock and the porcelain of an excellent grade. Then, too, the price is very moderate. These plugs represent many years of experiment and stand up well under the hardest kind of usage.



PATENTED
ALL IN ONE

Buffalo Carbureter Co.


NATIONAL CARBON CO.



Mosler Plug.

L.-B. ELECTRIC SPECIALTIES.

COILS, spark plugs and battery connectors are among the motorcycle products of the Lemke Electric Company, of Milwaukee, Wisconsin, manufacturers of high-grade ignition apparatus. This company is making about ten sizes and styles of coils, with and without switches, for one and two cylinder machines and for being fitted to two and three dry cells respectively.

The L.-B. spark plug is manufactured in both porcelain and mica. Two McKim copper asbestos gaskets, one above and one below the shoulder of the porcelain or mica, take up the expansion and contraction of the metal body and thus prevent leakage. The battery connectors are pressed from copper stock.

IGNITION NOVELTIES.

AMERICAN "Every Ready" products include every possible variety of flashlight, vestpocket lights, etc., and, particularly for motorcycle use, batteries and ammeters. The No. 405 (type I) Ever Ready dry cell is well known in the trade for its combination of a high amperage and voltage with long life and uniformity, insuring a hot, snappy spark, long mileage and consistent service. Then there is a special Ever Ready battery consisting of a separable metal case containing three cells, each two by five inches, with spring contacts. To remove the battery it is necessary only to pull apart the two sections of the case and replace the old cells with new ones. Ever Ready ammeters, volt meters, battery and coil meters are built in the same reliable way as other Ever Ready products. Address 304-322 Hudson street, New York.

* *

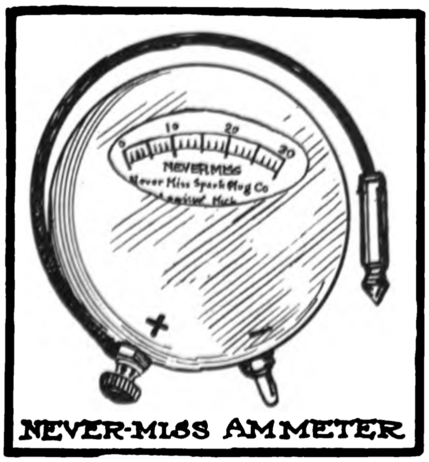
EASILY CLEANED.

ALL-IN-ONE is the name of the spark plug manufactured by the Buffalo Carbureter Company, Buffalo, N. Y. Many of these plugs are used on cars and motor boats, giving complete satisfaction. With the All-In-One plug it is necessary simply to pour a little gasoline in the priming cup, start the engine, open the cock and all the soot, grease and oil are blown off. In other words, the plug is self-cleaning.

* *

UNION BATTERIES.

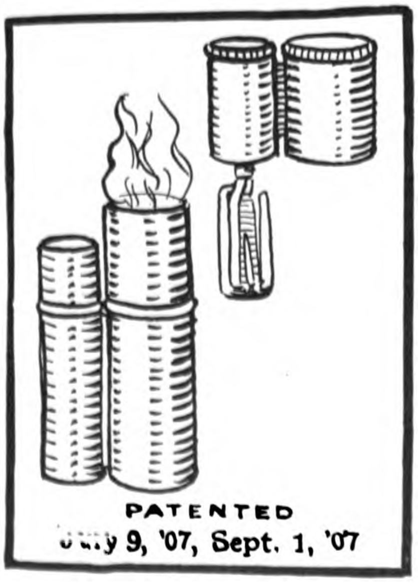
SPECIALLY designed for heavy work, the union dry cell, manufactured by the Union Battery Company, of Belleville, N. J., is warranted to stand up under the most severe conditions. It is said that this battery will give excellent results even when used with coils which consume a large amount of current. The Union dry cell is put up in square cartons convenient for packing in the battery boxes, or the battery can be had in round cases if such are preferred. The same company manufactures an ammeter with an etched metal dial. It is nickelplated and enclosed in a leather case with a snap lock. Every instrument is warranted to read correctly up to 50 amperes.


NEVERMISS
Never Miss Spark Plug Co
+
−

NEVER-MISS AMMETER

HANDY LIGHTER.

A LIGHT without matches can always be had if you are equipped with the alcohol flame pocket torch sold by Whipple the Motorcycle Man, of 260 West Jackson Boulevard, Chicago. It is simple, durable, always ready and requires but a thimbleful of deodorized alcohol for two weeks' supply.



Whipple Lighter.

Whipple issues periodically "Bargain Bulletins." He will be glad to put your name on his list so that you may receive them as they are issued.

COLUMBIA IGNITORS.

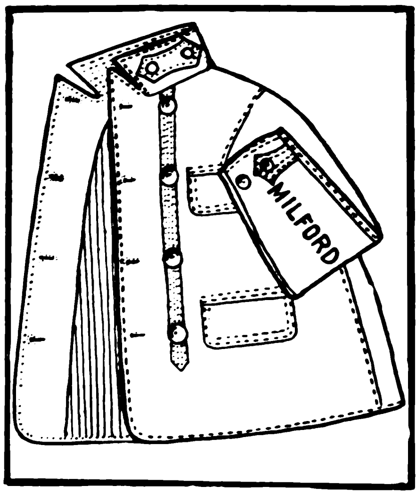
BATTERIES of every type and in all the regular sizes, together with battery connections, flashlights and testing instruments are produced by the National Carbon Company of Cleveland, Ohio. The so-called Red Top Columbia igniters are guaranteed to give a hot spark of the proper size, force and heat to ignite the mixtures. This battery is said to have a particularly long life.

IGNITION SPECIALTIES.

EASTERN dry cells, manufactured by the Eastern Carbon Works, of Jersey City, N. J., are well adapted for motorcycle use. They have a comparatively high voltage and current output, very satisfactory recuperative qualities and are strong and uniform. This concern also produces the Eastern voltammeter, furnished in a handsome leather case with a snap lock, also battery connectors, flashlights and a number of other specialties.

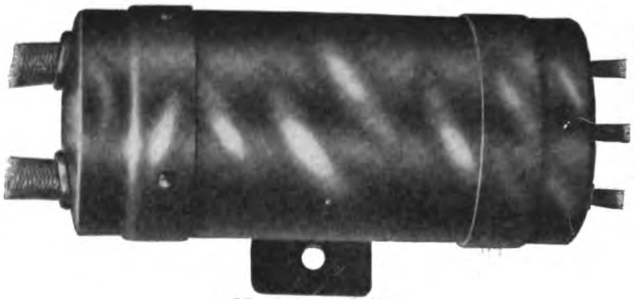
AMMETER AND SPARK PLUG.

NEVERMISS motorcycle accessories comprise an ammeter and several types of spark plugs. The former is a high-grade instrument, designed to be dust and moisture-proof, and guaranteed for one year. Its makers claim that it will not vary one-half ampere in its reading. An iron clad guarantee also goes with every Nevermiss plug.



A Nobby and Practical Coat.

LONG BROTHERS, of Kokomo, Ind., are the makers of a simple, practical and reliable mica spark plug which is distinguished by the fact that it is without an open gap.



Muskegon Coil.

METAL CASE COILS.

METAL case spark coils are produced by the Muskegon Manufacturing Company, of Muskegon, Mich. The cases are 7½ inches high and 2¾ inches in diamater, of oxodized brass, neat, compact and indestructible. They are built to be attached directly to the engine and are waterproof. All the windings are of American black enameled wire, which economizes space and current. The makers claim that this coil will produce a hot spark on six volts.

FOR HALF A DOZEN PURPOSES.

A "Six in One" motorist tool, which fits the vest pocket and which may be used as a gas tank key, bottle opener, cotton pin spreader, cotter pin pulley, screw driver or alligator wrench is one of the fitments made by the A. Nelson Manufacturing Company, of Chicago, Illinois. The concern also manufactures spark plug terminal nuts, firing pins, brass spark plug bushings, spark plug wrenches, lamp brackets, emergency pedals, adjustable cones, etc.

SAGER FORKS.

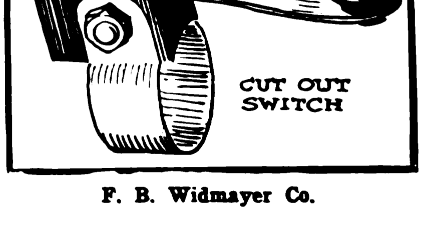
AMONG the Sager motorcycle products, manufactured by J. Harry Sager, of Rochester, N. Y., are the well-known patented Sager spring forks and the Sager toe clip, the latter manufactured by the Standard Company, of Torrington, Conn., and called the Standard Sager toe clip.

FOR BRAZING.

A CAST iron brazer burning gasoline and throwing a solid blue flame 14 inches long and 2 inches in diameter at the nozzle of the burner is made by the A. & J. Manufacturing Company, 26 W. Randolph street, Chicago. This brazer gives plenty of heat and can be easily regulated and reduced. It works under an air pressure of 50 to 75 pounds per square inch, produced by pumping at intervals with the pump attached to a steel tank. This company are also the manufacturers of braze-irons and A. & J. brazing flux.

* * *

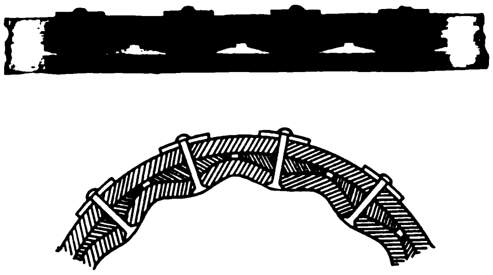
STEEL stamps, letters and figures, together with a full line of name plates, are manufactured by the Chandler Company, of Springfield, Mass.



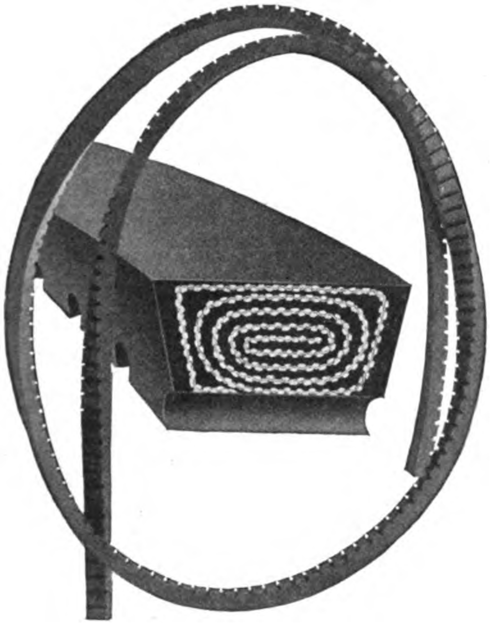
F. B. Widmayer Co.

CHAINS AND BELTS

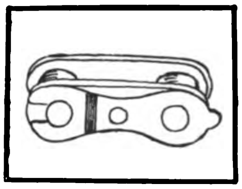
Chain Links and Belt Fasteners, Belt Hooks and Punches



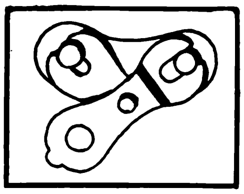
Wata-Wata Belt.

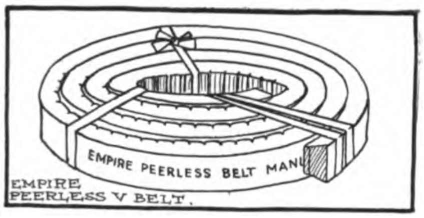


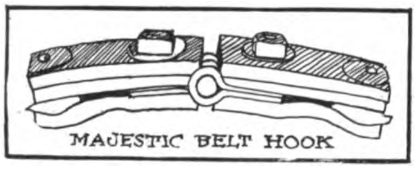
Goodrich Belt.

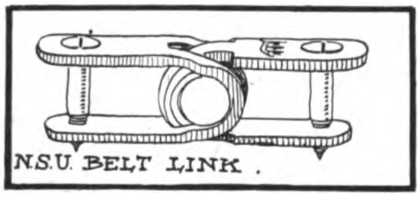


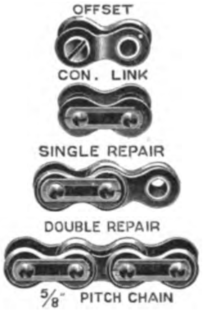
Whitney Chain Links.



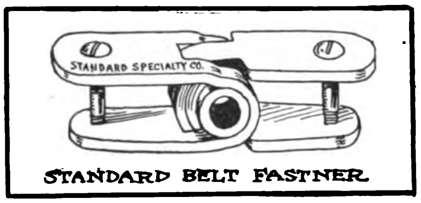

EMPIRE PEERLESS BELT MAN
EMPIRE PEERLESS V BELT.

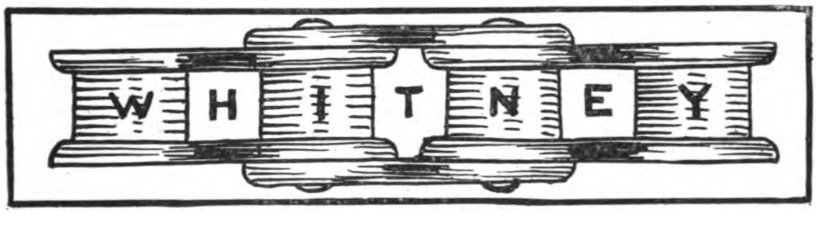

MAJESTIC BELT HOOK

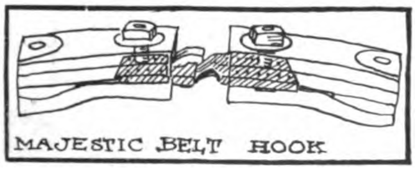

N.S.U. BELT LINK.

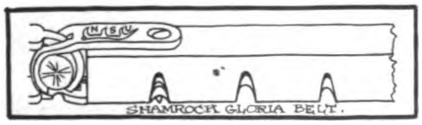

OFFSET
CON. LINK
SINGLE REPAIR
DOUBLE REPAIR
5/8" PITCH CHAIN

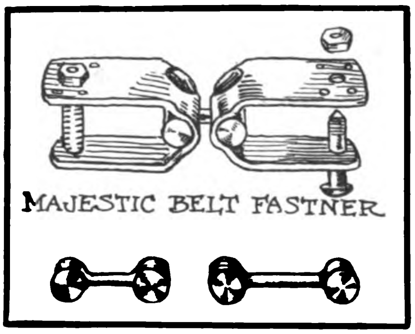
Duckworth.

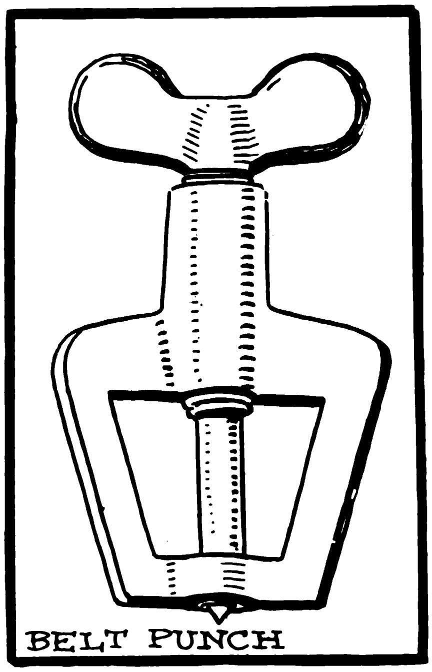

STANDARD SPECIALTY CO.
STANDARD BELT FASTNER




MAJESTIC BELT HOOK


N.S.U.
SHAMROCK GLORIA BELT.


MAJESTIC BELT FASTNER



N. S. U. Motor Co.

Tires

G. & J. TIRE EFFICIENCY.

CAREFUL selection of raw material and skilled workmanship in a plant having every facility for the manufacture of high grade goods are some of the factors which serve to explain the remarkable efficiency of the double clincher construction of Indianapolis G. & J. tires. The G. & J. product may be had in every size and every type. There is the corrugated tread, basket tread and the Bailey tread, for either twenty-six, twenty-eight or thirty-inch wheels, varying from 1¾ inch to 2½ inches in diameter, there being thirty-six styles and sizes of these three types. The company also manufactures a special tire for tandem machines. This tire is designed with a view to carrying extra weight and has more plies of fabric and a heavier rubber tread.

A safe and entirely satisfactory rim is the G. & J. double clincher, now being used as standard equipment on many makes of machines. The double clincher arrangement insures a positively firm hold upon the tire and also prevents sand or dirt from working into the channel of the rim and damaging the inner tube. The constructional details of this rim are such as to make it very strong and rigid, so that it does not dent easily or get out of true.

Repairing a puncture without removing the wheel from the frame is made possible by the use of the G. & J. socket joint endless tube. The convenience of this tube is so self-evident that it requires no comment. The G. & J. rubber grip is so constructed as to extend about four inches beyond the end of the handlebars, and being very pliable, eliminates jar and vibration on the rider's wrists. The knobs on the ends are large enough to prevent the hands from slipping off.

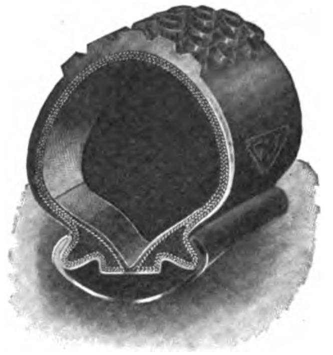
Other G. & J. specialties include an outside sleeve, an inner sleeve, telescopic pump, supplied with a clamp to attach it to the frame of the machine, pedal rubbers, patches, valves and valve parts and patching cement, the latter made from the finest Para rubber

GOODRICH PROGRESS.

THE B. F. Goodrich Company, Akron, Ohio, U. S. A., is accurately said to have the largest "mechanical rubber" factory in the world. That is to say, this is the most extensive institution now operating whose output represents every kind of rubber product except insulated wire, in which, by the way, the amount of rubber is hardly appreciable, and rubber clothing, other than rubber boots and shoes. To express such an achievement in another way, this company—in all its departments—now employs about 5,000 people. The laborers in the factory work within buildings that are well lighted, cleanly kept, and that furnish working conditions at all times favorable and wholesome. The structures cover a ground area of twenty acres, thus including a floor area of twenty-five acres. To make this space perfectly light and accessible for night as well as for day labor, there are 10,000 incandescent lights, and 135 of the arc type. For there is a night shift approximating 1,000 men—a provision for greater capacity that has continued some years.

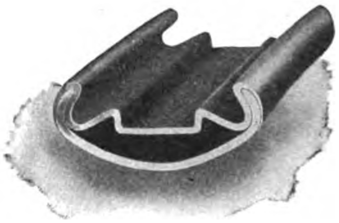
The development of this company has been distinctly American. Its beginning was small, its progress deliberate and its later establishment phenomenally successful.

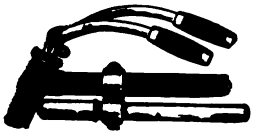
The B. F. Goodrich Company, of New York, has just finished one of the most admirably equipped buildings for the handling of their rubber products, especially tires, that there is in America. The structure is a notable addition to the business buildings of the neighborhood where it stands, Broadway, next to the corner of Fifty-seventh street. There are twelve floors and a basement. The latter is used entirely for the storage of automobile tires. The rear of the ground or street floor is a receiving and shipping room. The front is a large salesroom, which has been very effectively done in mahogany. Throughout this building, seemingly no mechanical device for the ready handling of the heavy stock has been omitted. There are special automobile elevators. One of these has the convenience of a turn-table floor. There is also a general freight lift. In addition, two passenger elevators are provided,

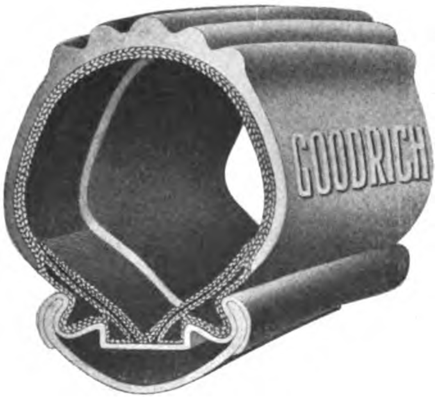

G & J Bailey Tread Tire.

G & J Butt End Tube.

G & J Grip.

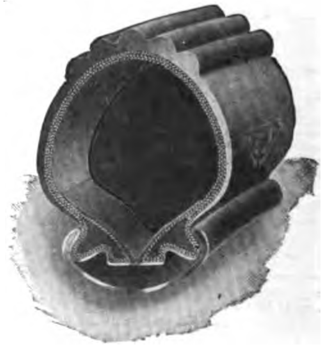

G & J Double Clincher Rim.


G & J Pump.



Goodrich Corrugated Tread Tire.

Goodrich
Vulcanizing
Cement
No 434
B. F. Goodrich Co.
Akron, Ohio. U. S. A.


G & J Corrugated Tread Tire.

and an electric dummy waiter, adjusted to stop automatically at any floor,

With the establishment in New York City, sixteen of the largest American cities have branches, where, for example, the stock of pneumatic tires is complete, and the facilities for repairing them are adequate. Thus, every part of the United States has a center from which the Goodrich Company's trade can be served. In London and in Paris the branches attend to the European demand. The year 1910 is the fortieth anniversary of the establishment of this company—one of America's most successfully developed industrial organizations. From the initial capitalization of $100,000 it has increased its resources to $10,000,000 out of its earnings. From a tiny force of fifty-five men in 1880, it has grown to demand the services of 5,000.

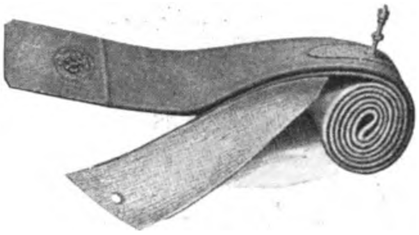
We illustrate cross sections of Goodrich tires, belt, tubes, patches, etc. The tires have already been fully described in this paper. Concerning the belt, its makers call attention to the fact that the fabric used is of exceedingly strong and closely woven material and is thoroughly stretched before being covered with rubber. The fabric, after being impregnated with a secret solution, is placed in a V-shaped mold of 28 degree angle. Around this fabric is vulcanized, under great pressure and heat, a quality of rubber that is made especially for this article. Each belt is made separately in one long mold.

* * *

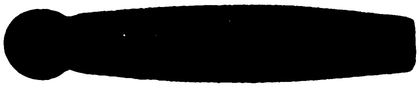
PENNSYLVANIA TIRES.

THE Pennsylvania Rubber Company is producing steel stud, flat tread racing and corrugated heavy tread casings, gray and red inner tubes, rubber V belts, short and long ball-bearing handle bar grips, rubber patches, repair outfits, in fact everything made of rubber that a motorcyclist requires.

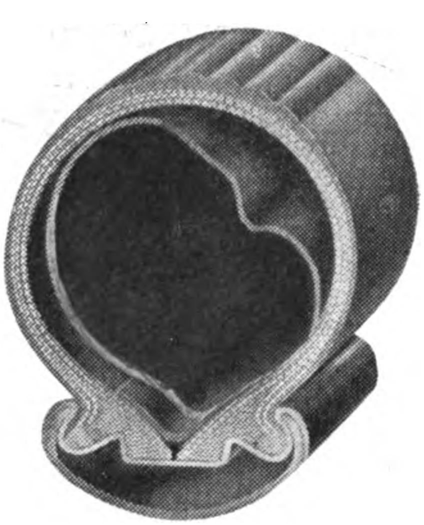
The Pennsylvania corrugated heavy tread tires are made with a desire to provide a casing which is unusually strong as regards friction, fabric and tread. The fabric is Sea Island cotton of three plies, held together with pure gum friction, and the tread is of a white stock such as is put into a Pennsylvania wrapped tread auto tire, with heavy corrugations to prevent skidding.



Morgan & Wright Inner Tube.



Morgan & Wright Long Grip.



M. & W. Corrugated Tread Tire.

GOOD TIRE MAKERS.

MORGAN AND WRIGHT, synonymous of good tires, have been making quite a dent in the motorcycle field. M. & W. tires are quite deserving of the characterizations which their makers have fitted to them. The casings are made of the best Sea Island fabric, three plies of which give one a great margin of safety and provide a tough and elastic cover stock of pure white color. There is enough friction to hold the plies of rubber and fabric together and prevent separation and blisters. The casing is not moulded but wrapped and shapped and may be had in single or double clinch, corrugated, basket weave and Bailey treads. The pure gum, butt-end inner tube has no eyelets, buttons, envelope ends or other unnecessary, troublesome or expensive fastenings. The tube is simple and easily handled. The 1910 corrugated casing has a very heavy, broad corrugation, which seems to be well liked in the trade and among the riders. It is now made in 28-inch by 2¾-inch single clinch also. The basket weave casing has wider, deeper and longer perforations, also a heavier corrugation on each side of the tread to take up air and preserve the tire's non-slipping qualities. The Bailey tread has four rows of buttons to prolong its life and render it safe for track work.

In addition to tires and inner tubes, the Morgan & Wright Company produces both long and short grips to fit either seven-eighth inch or one-inch bars.

Both grips are made of the finest grade of rubber, strongly reinforced and of an attractive design. There is a bowl on the end which is held in the palm of the hand to give a comfortable position and secure a good hold.

* * *

FOR RACING MEN.

A VERY neat and efficient racing bonnet made of rubber cloth for winter wear and khaki for summer, is produced by the Gilbert Manufacturing Company, of New Haven, Conn., makers of an extensive line of motor accessories.

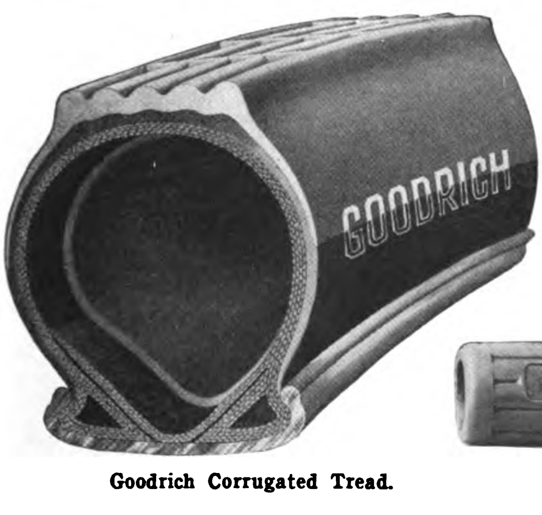
* * *

C. O. T. Gum Gum, manufactured and sold by Charles O. Tingley & Co., Rahway, N. J., is well adapted to the purpose of repairing dig-outs. The Tingley product is a handy accessory.

* * *

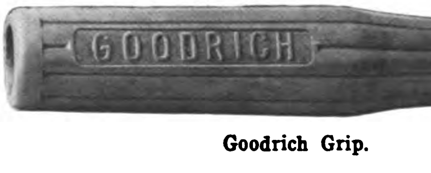
HANDY REPAIR OUTFIT.

M. & M. repair kits, made by the M. & M. Manufacturing Company, Akron, O., are packed in tin screw-top boxes, containing a special prepared cement, an assortment of patches, cement brush, emery cloth, etc. This outfit will be appreciated by the motorcyclist who has had experience with tube cement, which invariably gets broken or crushed in your tool box, and when most needed you find same has leaked or evaporated. The M. & M. kit is the result of careful experiments in the repair of punctures.



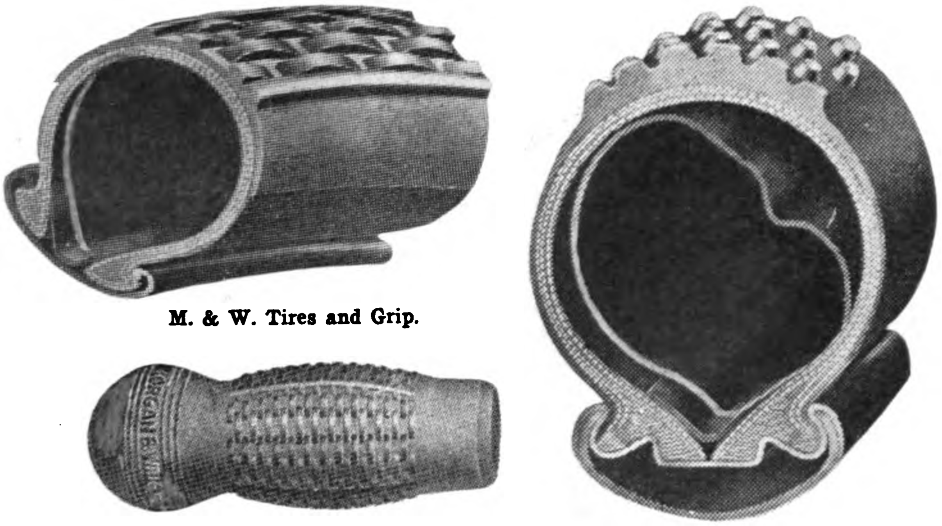
Goodrich Corrugated Tread.

GOODRICH
PLASTIC
THE B.F. GOODRICH CO.
AKRON, OHIO



Goodrich Grip.

M. & M. Tire Repair Outfit.



M. & W. Tires and Grip.

DIAMOND COMPANY'S SUCCESS.

TWELVE years ago the Diamond Rubber Company began business with two hundred employees, 65,340 square feet of floor space, and a boiler capacity of 400 h. p. Today 5,000 men are employed and more are being added daily; 1,700,000 square feet of floor space, which is now occupied, is by far insufficient for their needs, and the 6,304 h. p. generated is just barely able to operate all the extensive line of machinery.

A strict adherence to sound business principles, intelligent specialization and digging deep into the correct chemistry of rubber has produced a natural and healthy increase. In the manufacture of motorcycle tires, which was begun by the Diamond Rubber Company only a little over a year ago, as much as in any other of their special lines is this growth manifest.

To those familiar with Diamond automobile and other tires, the mere announcement that the Diamond Rubber Company was entering the motorcycle tire field was alone a quite sufficient guarantee of efficiency. Indeed, the personal interest and satisfaction expressed by motorcycle users, dealers and manufacturers generally receiving the information that the Diamond Rubber Company had begun the manufacture of tire equipment for their purposes in a large way, was very gratifying to the Diamond Rubber Company.

The Diamond Rubber Company claims that the secret of the immediate and pronounced success of its motorcycle tires has been due almost entirely to "long life and large mileage." The factor of tire mileage cost is no less important in the realm of motorcycles than in that of motor cars. A very large experience in the building of tires for all purposes was utilized in the production of the Diamond motorcycle tire.

Diamond tires are made in all the usual sizes and are of the regular clincher type, and single clinch only. The tread is of heavy gauge and heavily corrugated, the design of the corrugations being exclusively Diamond, and of a character that prevent skidding or side-slipping, as well as being an important aid to resisting punctures. Strength is the greatest element of Diamond motorcycle tires. Their extreme toughness, coupled with flexibility, not only gives strength but also resistance to the abrasions of daily service and the possibility of blow-outs. The bead or clinch fits perfectly within the rim and if the rims are kept true and the tires properly inflated, rim-cutting cannot occur. The cut of the Diamond motorcycle tire, as shown on this page, will give some idea of its construction.

AJAX NON-SKIDS.

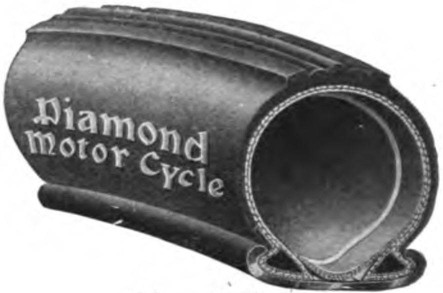
BOTH the automobile and motorcycle non-skid models of Ajax tires, built by the Ajax-Grieb Rubber Company, of Trenton, N. J., have the same style diamond-shaped raised rubber studs and differ in appearance from other anti-skid tires. The raised parts are 3/16 of an inch in depth, arranged diagonally across the tread and far enough apart to prevent squeezing and flattening into a smooth surface when under weight and in contact with the road surface. The quadrilaterals on the Ajax tread, pointing in the direction in which they run, are said to offer much less resistance, and wear less than the usual round or square rubber button or stud. The Ajax non-skid is extra heavy, the 3½-inch size having five plies of fabric. A heavy breaker strip for the fabric layer between the inner pliable rubber cushion and the tough outside layer is used.

A PUNCTURE PREVENTATIVE.

A NON-PUNCTURE inner case is manufactured by the Atlas Rubber Company, of Buffalo, N. Y. This fitment requires no comment, being designed, of course, to prevent blow-outs. The particular inner case manufactured by the Atlas Rubber Company has given excellent satisfaction everywhere. Prices may be had on application.

FOR PATCHING RUBBER.

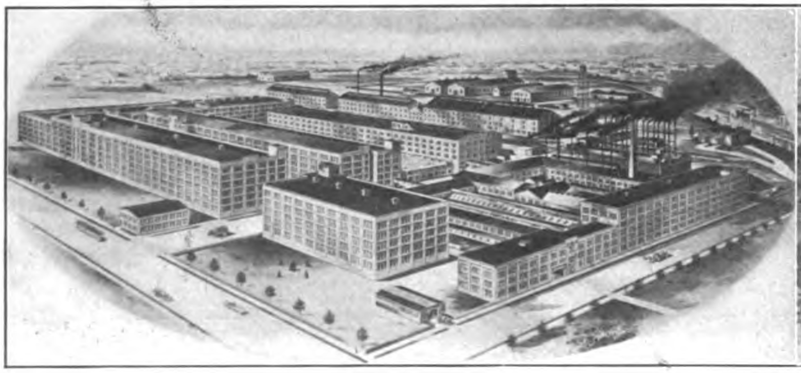
EAGLE rubber cement, manufactured by the Eagle Rubber Cement Company, of Trenton, N. J., is offered by that concern as being particularly well adapted for patching inner tubes and tires. It dries in two minutes. This cement can also be used for repairing other rubber goods and for light leather work as well.



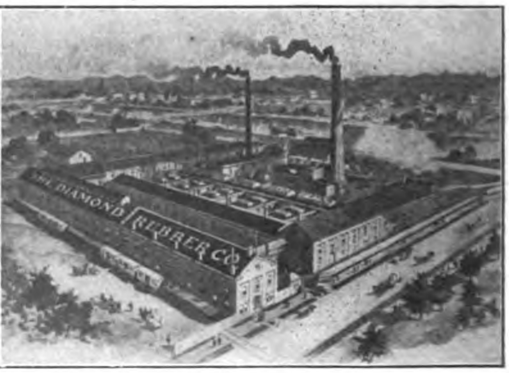
Diamond Tire.

FOR BODILY PROTECTION.

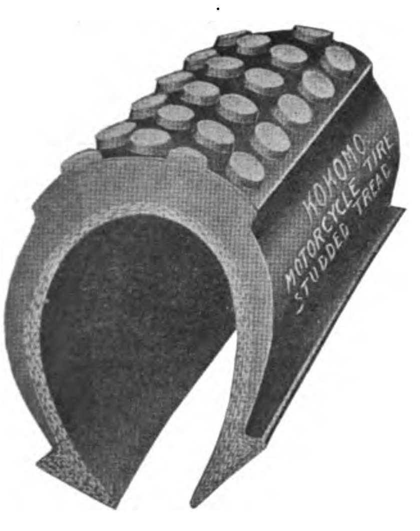
"RUBINOL" rain coats, peculiarly adapted to the needs of motorcyclists, are manufactured and sold by the General Commercial Agency, 187 Greenwich street, New York City. They are black in color, weigh only twenty-four ounces and are waterproof. The fasteners for the neck are placed at different distances, so that the same coat will fit any person. A hood is attached to the body of the coat.



The Diamond Rubber Company's Factory Now.



As It Was in 1900.



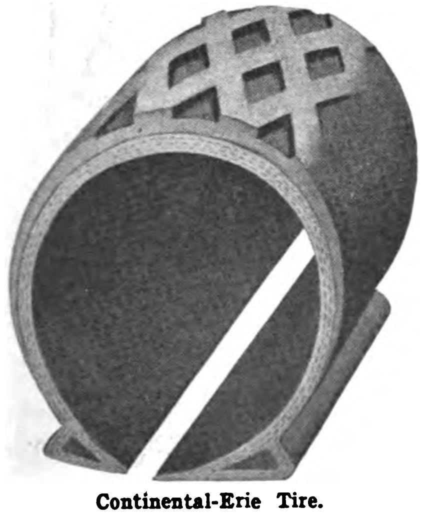
KOKOMO'S RAPID STRIDES.

ALTHOUGH the Kokomo Rubber Company, manufacturers of the Kokomo tire, have been in the motorcycle field for less than two years, their product has met with marvelous success. For fifteen years they have been building other types of tires and they have demonstrated to thousands of users that they know how. In the spring of 1908, after a careful study of the requirements of a motorcycle tire, they built one which, in their judgment, would give excellent satisfaction and at the same time insure easy, comfortable riding. These tires were put to a very severe test before they were offered to the trade. The Kokomo tires are built of fine Sea Island cotton fabric, of which four plies are used, and the kind of rubber that is guaranteed to absolutely stick to the fabric. These tires, of the double tube clincher type, are fitted with the studded and gridiron treads respectively, and are built in all the necessary sizes.

* * *

A NEW TIRE—THE ERIE.

THE Continental Rubber Works, of Erie, Pa., are producing a new line of motorcycle casings. They have heretofore specialized on bicycle tires, and their success in that line has been due to the fact that they have made tires suitable for the service required. They have made a careful study of the service and requirements of a motorcycle tire, and have in their employ enthusiastic riders who have carefully and thoroughly tested their product. The Erie casings are so made that buckled fabric—the cause of most blowouts—is practically impossible. The beads fit perfectly to the rim and are made with hard rubber core, which prevents stretching and permits the beads to be absolutely uniform. The fabric is made from the best long staple cotton, and is strong enough to withstand the most rigid service to which a tire can be subjected.

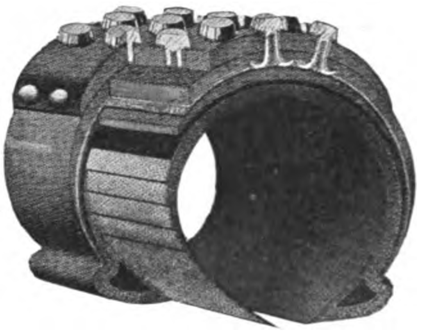


Continental-Erie Tire.

* * *

LEATHER NON-SKIDDER.

WARRANTED by the manufacturers against punctures, blow-outs and rim cuts and to be absolutely non-skidding yet at the same time quite resilient, King leather tires, manufactured by the King Leather Tire Goods Company, 3417 Vliet street, Milwaukee, are something entirely new in the motorcycle field. The outer leather case is made from large, selected pieces of the best imported leather, tough and pliable as well as water and weatherproof. There are three thicknesses of this material, and the treads are studded with from 3 to 7 rows, according to the size of the tire, of hardened steel studs.



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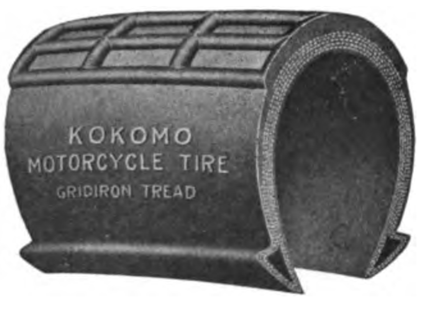
AN ELECTRIC VULCANIZER.

NINETY-FIVE per cent. of the tire troubles are due to blow-outs and sand pockets caused by premature weakening of the fabric, usually the result of neglect of cuts in the rubber treads of the casings. A very neat and easy way of cementing and filling in the cut with new live Pará rubber is by the means of the Shaler electrical vulcanizer. The Shaler vulcanizer is characterized among other things by the following qualities: The heat is easily regulated; the control of same being automatic; it is conducted evenly to every point of the vulcanizing surface, which is large enough to satisfy any requirement. The vulcanizer can be inexpensively operated by an amateur. It will fit all sizes of tires and will work equally as well on inner tubes as outer casings, reaching every part of the tire or tube. In vulcanizing an inner tube by this method, the damaged part is cleaned with gasoline and sand paper, then cemented and one piece of Pará rubber placed in and another over the hole. The tire is then laid across the shelf furnished with the outfit, the heater clamped on and left for fifteen minutes, requiring no regulating nor any consumption of the operator's time. To vulcanize a casing it is not necessary to remove it from the wheel. The cut is cleaned, cemented and enough Pará rubber placed in it to fill. Then the vulcanizer is clamped on and simply left there until the repair has been completely made. The C. A. Shaler Company, of Waupun, Wisconsin, manufactures vulcanizers specially adapted to motorcycle use and which should be indispensible to every live and up-to-date repair man.



* * *

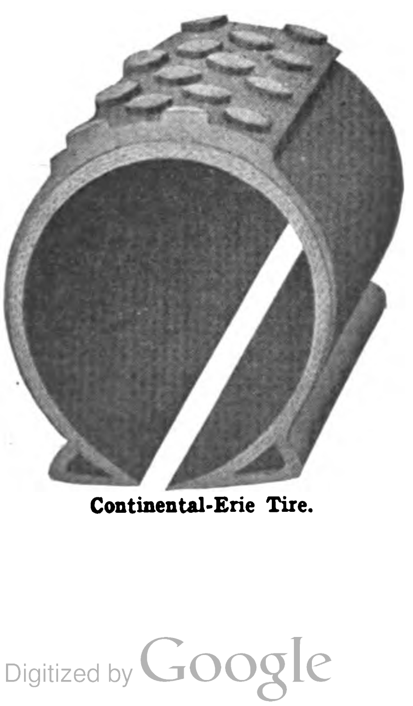
R-S ATTACHMENTS.

THE R-S Company, in addition to its machines, offers agents attachments for motorcycles, including chair fore cars, delivery fore car attachments and luggage carriers, rear extension saddle attachments, tandem attachments, automatic stands etc., and in addition to the above the Reading Standard Company are the pioneer manufacturers of wagonettes.

The R-S wagonettes are specially constructed delivery vans for every class of commercial requirements. They design and build special delivery vehicles for gas, electric light and telephone companies, butchers, bakers, grocers, veterinary surgeons, milk companies, florists, shoe stores, haberdashers and, in fact, machines specially constructed for any lines of business to enumerate.

* * *

RADIAL and thrust ball retainers of every conceivable size are manufactured by the Star Ball Retainer Company, of Lancaster, Pa.

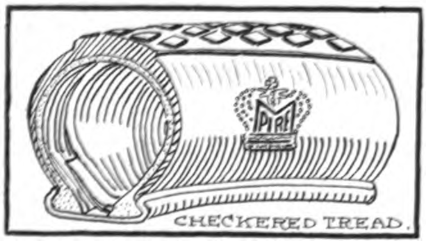


Continental-Erie Tire.

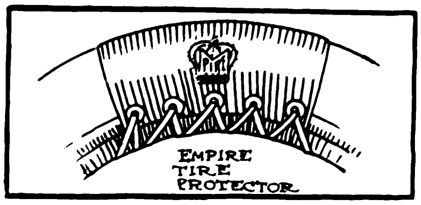
TWO EMPIRE TREADS.

EMPIRE tires are made by the Empire Tire Company with two styles of treads, the specifications of each being as follows:

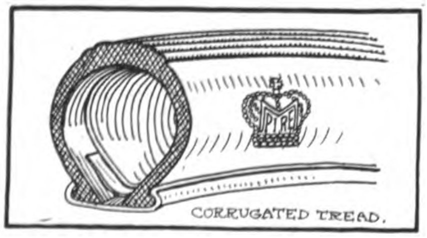
Corrugated tread—Molded, with three-ply closely woven cotton fabric; wide corrugations on tread; heavy re-enforced cover; sizes. 2¼ x 26 inches to 2¾ x 28 inches.



Checkered tread—Molded, with three-ply woven cotton fabric; heavy re-enforced cover with checkerboard tread: sizes. 2½ x 26 inches to 2¾ x 28 inches.



Endless or butt-end tubing for the above casings also are made by the Empire folks, together with a very efficient belt.



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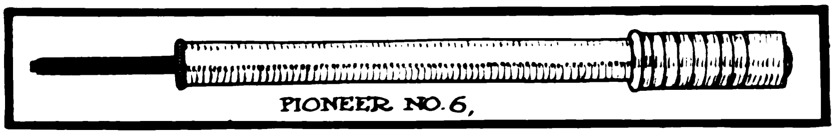
FOR TIRE REPAIRING.

KNEAD-IT, produced by the M. & M. Manufacturing Company, of Akron, Ohio, is well worth investigating, particularly by anyone who has been worried over his tire expense. No matter how carefully you drive your machine you will now and then nicker or cut your tire. Unless you seal that cut at once, a sand blister will follow and, finally, a blow-out. A pinch of Knead-it worked into a cut will seal it securely and at far less expense than vulcanization. A two-ounce can of it costs but fifty cents.



FOR TIRE INFLATION.

A COMBINATION pump for inflating motorcycle tires has been placed on the market by the Nadham Company, of 220 Broadway, New York. When this pump is attached to the tire valve fresh air is drawn in at the lower end, while the air already in the cylinder is compressed at the upper end until it is dense enough to automatically release the plunger and mingle with a fresh barrel of air, thus delivering very nearly two barrelsful of air into the tire on each downward stroke. The same company also gets out a fiber pump, primarily for bicycles, although it is used to a great extent for inflating motorcycle tires. The principal feature of this pump is that it will stand any amount of knocking-about without getting dented.

* * *

COMPLETE TIRE REPAIR OUTFIT.

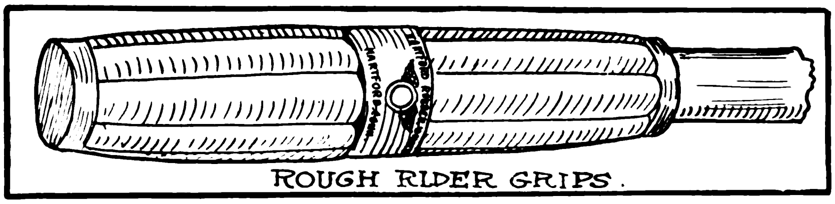
A VERY compact emergency repair outfit, to be carried under the seat of one's machine, is manufactured by the Goodyear Tire & Rubber Company, of Akron, Ohio. This outfit includes a protection patch which when properly put on will run many miles, the outside boot protecting the tire and lacing over the rim; the inside patches fit snugly inside the casing so as to prevent any further damage to the tube.

The Goodyear rim cut patch has a fabric flap which holds it firmly in place. The inner tube patches are made of fine Pará rubber in ½, 1¾, 2¼ and 2⅝-inch sizes. Then there is a little repair outfit which is packed in a small tin box and contains an assortment of tube patches, valve parts, cement, etc. Finally, there are the reinforced blow-out patches which require no cement, the surface of the friction fabric adhering firmly to the casing. These patches are well adapted for inside repair of blow-outs or for cuts in the casing. All in all, the Goodyear outfit is compact and handy in every sense of the word.

* * *

HARTFORD ROUGH RIDER GRIPS.

ROUGH RIDER grips, with knob or plain ends, and made for ¾, ⅞ 1, 1 1/16 or 1⅛ inch bars, are manufactured by the Hartford Rubber Words Company of Hartford, Conn. These grips fit on the bars for half of their length, the extension part relieving the rider from any jar on the hands and wrists.



EVERYTHING YOU REQUIRE.

EVERYTHING worth while in the way of parts and fitments is illustrated in the 1910 and 1911 Motorlog, just issued, according to annual custom, by the **Frank B. Widmayer Company, 2312 Broadway**, this city. Nothing for which a motorcyclist possibly would have any use is omitted from the Widmayer list, which is one of the most comprehensive obtainable in the United States. To the fact that his catalogue is comprehensive may be added the assurance that Mr. Widmayer has the reputation, which he has enjoyed for years, of being able to back up every claim he makes in his printed matter. This firm is perfectly reliable and can always be depended upon to do the fair and square thing by its patrons.

Goodyear Repair Outfit.

Goodyear Patches.

BRONZE gear pumps designed for force lubrication are the leading product of the M. L. Oberdorfer Bros. Company, of Syracuse, N. Y. These pumps are designed to raise oil three feet without priming and give a minimum pressure of 80 pounds.

* * *

Excelsior Grip.

Leather Goods

THE TROXEL BRAND.

QUALITY saddles in two types, the Eagle and the Wood Base respectively, are made by the Troxel Manufacturing Company, of Elyria, Ohio. The former is 13¼ inches long and 12 inches in width. The new Troxel Wood Base motor saddle, a distinctively 1910 product, has a length of 14½ inches and a width of 12½ inches. It is unnecessary to add that the leather and the metal put into the Troxel product is right up to the mark in every particular. The Troxel people have been making bicycle and motorcycle saddles for many years and they have acquired the knack of putting them together in an entirely satisfactory form. They are doing a very large business with a highly pleased clientele. You will find their catalogue and the guarantee which goes with everyone of their fitments worth looking into.

* *

FIT FOR ANY HAND.

FIFTY years of glove-making "Know How" is built into every pair of Grinnell gloves, manufactured from strong and serviceable chrome-tanned leather by the Morrison-Ricker Manufacturing Company, of Grinnell, Iowa. This concern is the originator and patentee of "rist fit" and ventilated gloves. The little V of soft leather inserted in the cuff permits of the glove being drawn neatly and snugly about the wrist, holding the gauntlet up and thus excluding wind, dust and dirt. Through tiny rows of perforations across the back of the hand and fingers a current of air is admitted, keeping the hands cool even in the warmest weather. Grinnell gloves are made in all sizes and many styles.

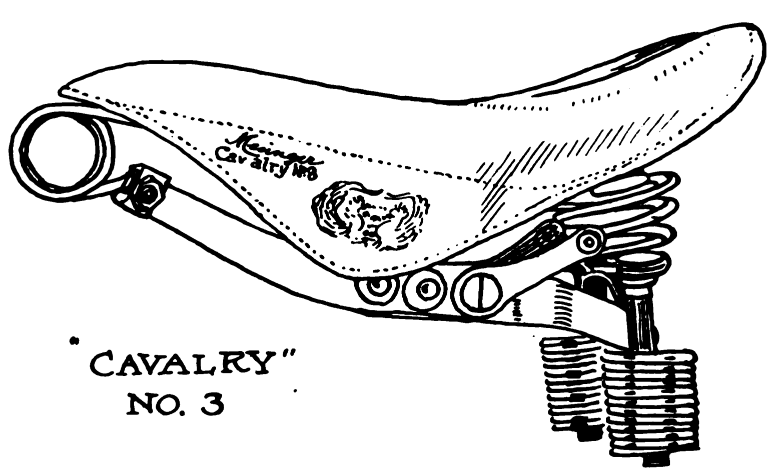
* *

ANYTHING in the way of sheet metal stampings may be had from the Crosby Company, Buffalo, N. Y. This concern does a lot of motorcycle work and is always ready to suggest designs, submit prices, etc.

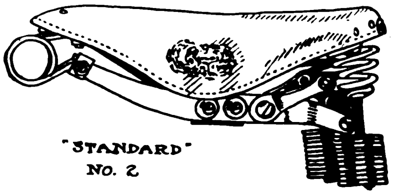
MESINGER STANDARD GOODS.

TEN types of saddles and fine magneto covers, mud guards and tool boxes are included in the enormous output of the H. & F. Mesinger Manufacturing Company, 1801-1803 First avenue, New York. The three-piece leather top feature of the Mesinger saddle product is deserving of especially favorable comment. It is designed to hold the saddle in proper shape and prevent stretching. The Mesinger saddles are divided into five styles of the Cavalry type and five Standard models. All Mesinger saddles, as is generally known, are equipped with friction shock absorbers, which are attached between the two rear springs to check the rebound of the extension spring, and minimize side sway. The shock absorbers can be adjusted to the weight of the rider by loosening the lock-nut, adjusting the side-bolt as desired, and tightening the lock-nut again. The front torsion spring has the well known hinged joint which acts freely and prevents breaking.

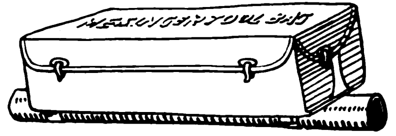
The Mesinger Cavalry saddle is highly recommended by many experts and riders, owing to the correct shape of the seat. This is padded with curled hair and curved on the style of a horseback saddle to prevent slipping forward or backward, which avoids that crampish hold to the handle bar, gives a pleasing and comfortable position and adds to the safety and pleasure of motorcycling. These saddles, and also the Standard type, are guaranteed for a year.

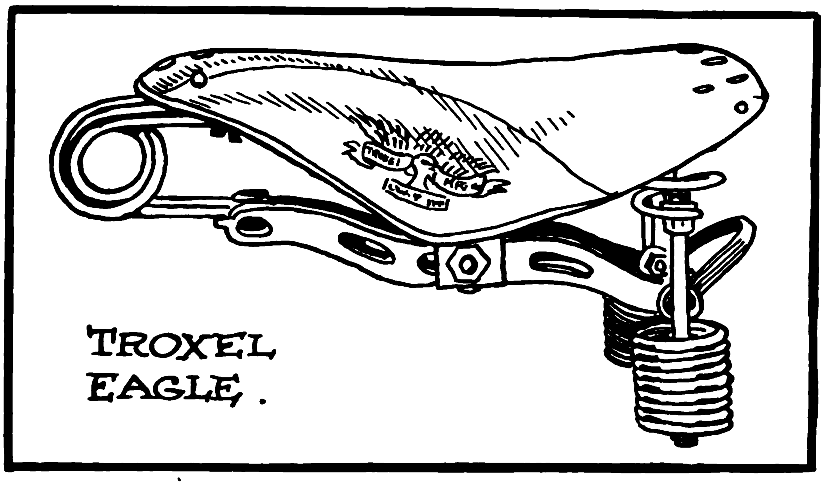


"CAVALRY"
NO. 3

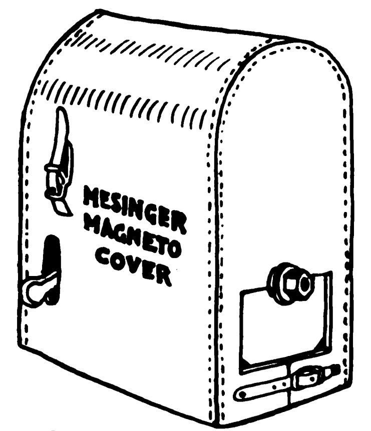


"STANDARD"
NO. 2





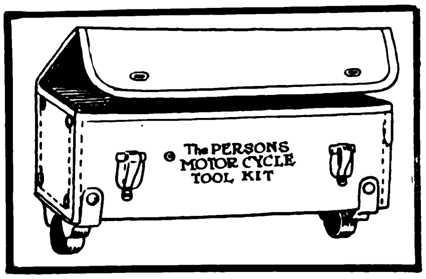
TROXEL
EAGLE.



A Pair of Grinnel Gloves.

A VALUABLE CATALOG.

F. A. BAKER & CO., 10 Warren street, New York, annually issues a catalogue of motorcycle supplies which is quite indispensable to up-to-date riders. His 1910 list, which is No. 12, comprises, among other fitments, lamps, brackets and generators; horns, pedals, goggles, saddles and tool bags, stands, speedometers, spark plugs, batteries and coils, ammeters, wrenches, mud guards, lubricants, magnetos, chains, brakes, hubs and rims, tires, tire bands, patches and repair kits, leggings, gloves, handle bar control mechanism, spring forks, etc. The catalogue is lavishly illustrated and carefully indexed. A copy may be had for the asking.



HANSEN MOTOR GLOVES.

HANSEN'S products are especially designed to meet the requirements of some outdoor occupation or sport. Of the entire line the Hansen motor gauntlets are probably the most popular product of that concern. These gloves are made from a special tannage of reindeer horse hide, guaranteed never to shrivel, shrink, peel or harden, despite continued exposure to the weather. They are also made of a fine quality of imported black grain leather. Either way, Hansen's motor gauntlets are soft and pliable and wear well. They fit nicely and look distinctive.

* *

PRESSED STEEL METAL PARTS.

THOUSANDS of pressed steel metal parts for motorcycle manufacturers are made by the Worcester Pressed Steel Company, of the Massachusetts city of that name, although the company does not pretend to carry parts in stock. Everything is made according to special designs and to order. The Worcester Pressed Steel folks have excellent facilities for heavy cold hollow drawing and for forming stamped metal parts thirty inches or less in diameter or eight inches or less in depth and one-third of an inch or less in thickness. Such pressed steel and other pressed metal parts as are adapted to their process and within their capacity and limits they can economically make in any quantity, size or type. They replace drop forgings and hand castings with pressed steel, which is lighter and stronger and, they declare, better and cheaper. They weld steel and other metals by the new autogenous welding process, which largely increases the range of pressed steel.

* *

VALUABLE CATALOGUE.

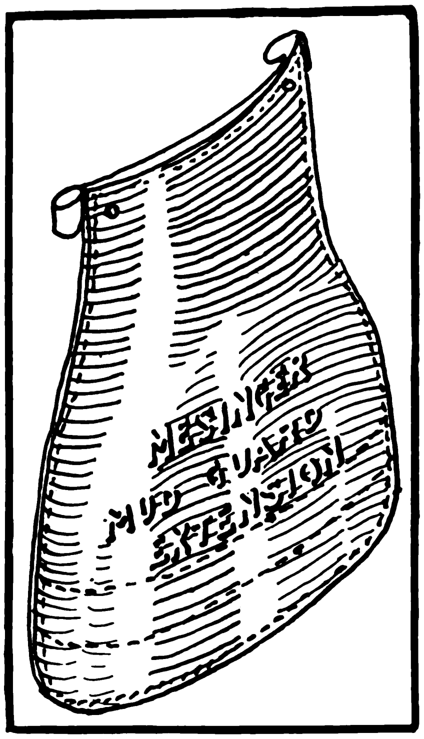
AMONG the leading jobbers in the country is the New York Sporting Goods Company, which is prepared to satisfy almost any requirement of a motorcyclist. Just at present this concern is featuring the sale of a lot of tire "seconds," which are real bargains. Among the motorcycle accessories listed in their Catalogue No. 45, recently issued by this company, whose address is 17 Warren street, New York, are tires of every make, inner tubes, patches, repair kits, valves, lamps, brackets and generators, horns, tools, cements, seats, luggage carriers, saddles and other leather goods, grips, belts, etc. This catalogue is very comprehensive, extensively illustrated and conveniently indexed.

Price Motor Gloves.

PERSONS' MOTOR SEAT.

PERSONS' champion motor seat, with a length of thirteen and a width of two and a quarter inches and divided throughout to straddle frame, with patent compound springs, and so designed as to do away with friction and side sway, is fitted with steel drop forgings accurately machined at the company's plant. The tops are cut from pure oak-turned steer middlings, averaging a quarter inch in thickness. The tilting security clamp holds the frame at two points so as to prevent slipping. The front springs are hinged and very resilient. There is both comfort and durability in this saddle.

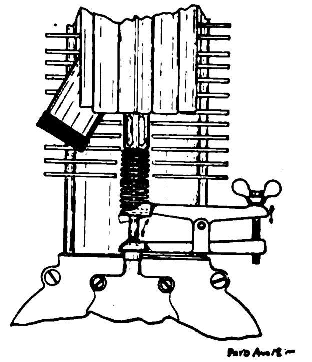
A HANDSOME catalogue, printed in colors and very comprehensive, is issued by F. F. Rick & Company, 517-519 Main street, Buffalo, N. Y. It lists practically everything worth while in the way of motorcycle parts and fitments and ought to be in the possession of every dealer and rider in the country.



DESERVING of special mention among the jobbers in the United States and publishers of especially valuable catalogues are the Beckley-Ralston Company, 80 Michigan avenue, Chicago; the Economy Cycle Supply Company, Detroit, Mich.; John S. Leng's Sons & Company, 33 Murray street, New York; the Sidney B. Roby Company, 218 South avenue, Rochester, N. Y.; the Sub Signal Company, Boston, Mass., and Charles E. Miller, 97 Reade street and 121 Chambers street, New York.

* *

O. W. YOUNG, 174-180 Frelinghuysen street, Newark, N. J., issues a catalogue of motorcycle supplies including tire repair outfits, rubber cement, Oil-M-Up, rim cement, patches, vulcanizers, patches, goggles, etc.



Swenson Exhaust Valve Lifter.

Chains & Belts

THE DIAMOND PRODUCT.

ESTABLISHED in 1890, the Diamond Chain and Manufacturing Company, of Indianapolis, has developed an enormous business in all kinds of chains. Its Nos. 45, 103 and 150 for motorcycles, the latter especially suitable, are made of polished straw-tempered hard rollers with hard steel bushings, equally hard rivets, full polished blue sides with beveled edges and reamed holes. These chains are built to withstand a force of 3,000 pounds. Diamond chains are uniform in accuracy and have great tensile strength, the materials from which they are made being of a special analysis. The system of inspection, both of the raw stock and finished product, is so rigorous as to maintain at the highest point the Diamond standard of perfection.

This company manufactures one of the best and most scientific detachable chains ever produced. It is made in all sizes and interchangeable with Diamond riveted chains. Then there are also Diamond repair links and the Diamond repair block, a device for detaching links of rolling chains and making their removal and quick separation easily performed.

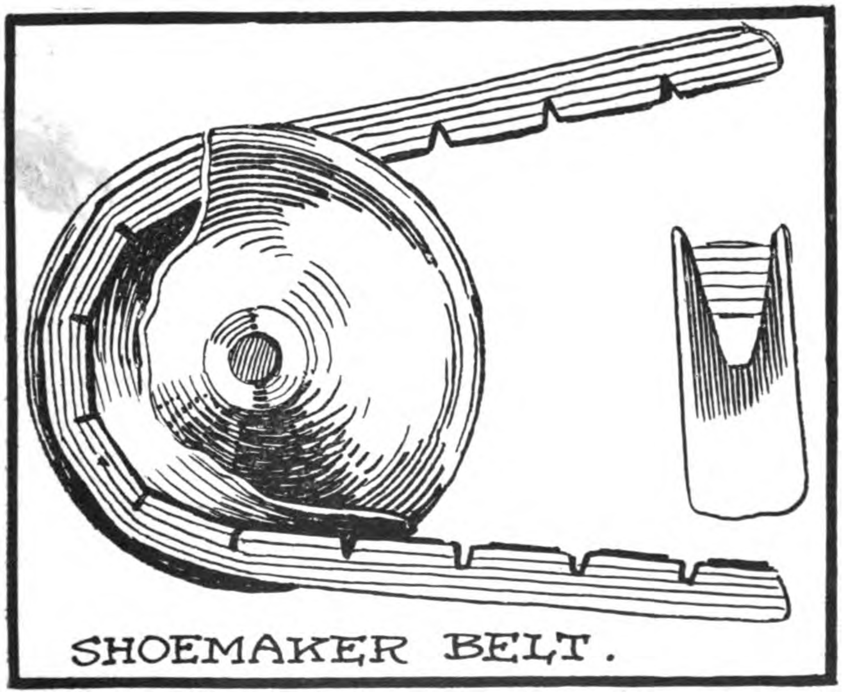
SHOEMAKER "V" AND FLAT.

IN the Shoemaker "V" belt, manufactured by the Apex Belting Company, 240 Chestnut street, Philadelphia, three plies of "Beaver" leather are strongly cemented together with a moisture proof flexible cement. Then two-ply "blocks"—the two plies cemented together—are copper riveted to the three-ply belt, to give the required depth of friction surface on the sides. The rivets perform three important functions. They firmly attach the two-ply "blocks" to the belt; the post of the rivet supports the belt through the center, and the large oblong burr on the upper side keeps the belt flat and absolutely prevents "curling" of the edges.

These belts are made throughout of "Beaver" leather, which is tanned from selected imported hides by a new secret process that produces a pliable but exceedingly tough, strong, long-lived leather.

This company also manufactures a non-stretchable flat belt made to meet the demands of those who prefer this kind of drive. This belt is constructed of two plies of "Beaver" leather with a ply of non-stretchable razor strop webbing in the center, all firmly cemented with water-proof cement. In addition the belt is stitched through with three rows of waxed thread.

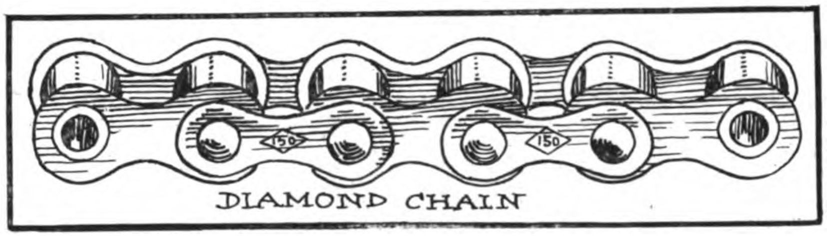
The advantages of this belt are strength, no stretch, pliability and durability. It requires no belt dressing, and is not affected by water, oils, gas or climatic conditions. Apex specialties include belt drills and fasteners.



SHOEMAKER BELT.

DUCKWORTH CHAINS.

A COMPLETE line of standard chains in both riveted and detachable styles, the former with hardened rivets, are gotten out by the Duckworth Chain and Mfg. Company, of Springfield, Mass. Of course, this concern produces connecting and repair links and, in addition, chain repair tools. When using the Duckworth repair set, it is well to fasten the block permanently in some convenient place, otherwise it would be necessary to fix it in a vise each time before using it. In order to repair chains, one inserts the forcing off plate between the links, places chain in block groove and drives studs through with punch furnished for the purpose. To piece a chain it is necessary simply to drive the side links in a rivet with a sharp blow of a hammer and then completely force in the links with the fetching up punch. The heads may then be riveted with a few light taps of a small hammer.



DIAMOND CHAIN

MAJESTICALITIES.

MAJESTIC specialties, so well known throughout the country as to require no extensive description, include wire baskets, wire carriers, waterproof cravenette and tubular luggage and baggage carriers, imported Wata Wata belts, adjustable and detachable fasteners, belt drills and stands. The tubular baggage carrier is made of seamless steel tubing with five steel cross pieces. The carrier is fitted with three heavy leather straps with buckles. It is light and yet strong and at the same time attractive in appearance.

The Wata Wata belt has made a magnificent reputation for itself in England and is rapidly gaining popularity in this country. It is warranted to "hug the pulley" and thus naturally increase the amount of power transmitted from the motor to the rear wheel.

OTHER N. S. U. FITMENTS.

MANUFACTURED by the N. S. U. Motor Company, in addition to their two-speed gear and free engine, described elsewhere, are belt fasteners in three styles, belt punches, Shamrock Gloria belts, Ada leather belts, N. S. U. spark plugs, imported Peter Union, S. E. and Continental tires, N. S. U. non-skid and puncture proof bands, and N. S. U. horns.

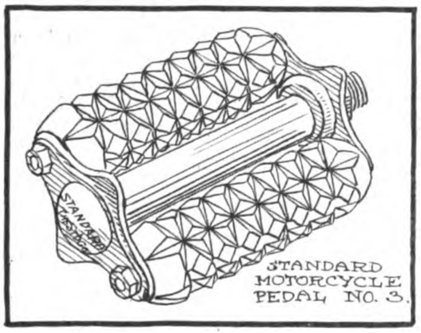
The S. G. belts have been improved by the use of an entirely new formula for both rubber and canvas. The corrugations on the under side of the belt are deeper, thus allowing the belt to conform to a very small pulley without its bulging out at the sides. The belt will wear longer and on account of the even strain when the belt is in tension there will be no cracking.

WHITNEY CHAINS.

DOING an enormous business in chains, manufactured in one of the finest factories in the country, the Whitney Manufacturing Company, of Hartford, Conn., produces several types of chains which are particularly adapted to motorcycle use. These are all made of the finest material, of practical designs and by skilled workmen. The final result, in view of these favorable conditions, is altogether good. Whitney chains have a real reputation, to which their manufacturers are adding every year.

THE "BREECH BLOCK."

BREECH Block spark plugs, manufactured by the Standard Company, of Torrington, Conn., are so constructed as to give a priming cup and also a compression relief. The nipples are a fixture in the cylinder, so that there is no wear on the threads, thus causing leakage and loss of power. This plug is sold fitted with a breech block terminal clip and handle, the latter being very convenient when testing the spark or when removing the clip from the plug. The same concern produces the Standard pedal, having a three-quarter-inch, especially hardened steel axle, large ball bearings and rubbers of a special design with deep corrugations, giving a firm foothold and absorbing vibration. The rubbers are supported on a square rod, and can be turned when worn, thus presenting new surfaces for the foothold. Emergency axles, toe clips and Diamond E sparks are also produced by the Torrington Company.

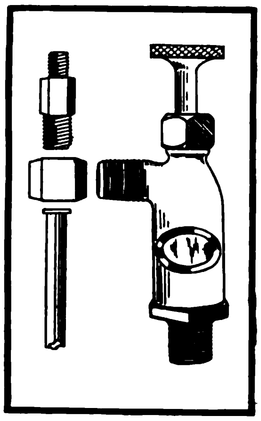


THE MORSE TWIN ROLLER.

MORSE twin roller chains are designed to prevent stretching by the introduction of a rocker joint. The pins forming each of these joints are made of tool steel, carefully hardened and so constructed that they roll or rock on each other as the chain bends around the sprockets. The friction between sprocket and chain is also avoided by rollers which turn as the chain feeds on and off the sprockets. The makers, the Morse Chain Company, are located in Ithaca, N. Y.

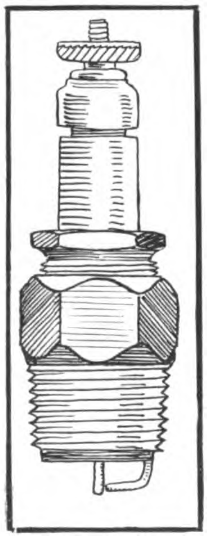
BIG JOBBING FIRM.

AN extraordinarily large stock of motorcycle supplies is carried by the Motorcycle Equipment Company, of Hammondsport, N. Y., which issues one of the most comprehensive catalogues in the trade, containing 100 new accessories, as well as all the old ones of merit. Among those deserving of special mention is the Curtiss carbureter, weighing seventeen ounces and made mostly from aluminum. There are no delicate parts to get out of order and they are all interchangeable. These carbureters have been on the market for seven years and have stood the test of time.

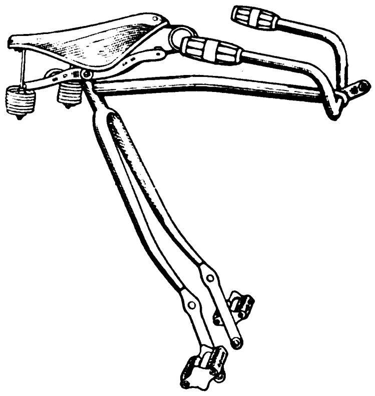


Compression Relief and Oiling Device.

Then there is the "Meco" compression relief for insertion in the crank case to relieve the pressure and stop the oil from coming out on the outside of the motor. All that is necessary is to drill a small hole in the top of the case and thread it to fit the compression relief. A single copper wire supplied by the company is then coupled to the relief with a coupling nut. There is also the "Meco" oiler made of solid brass, nicely nickeled. It has an oil window on either side. A milled screw needle valve with packing nut is fitted to the top of the oiler so that the flow of oil can be regulated.



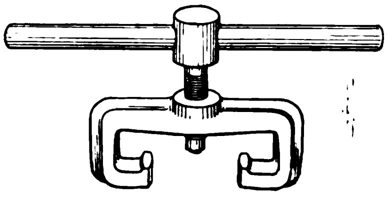
"Meco" Spark Plug.



Indian Tandem Attachment.

HENDEE SPECIALTIES.

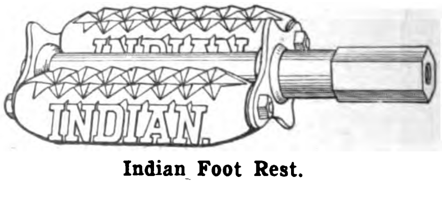
A TANDEM attachment which can be quickly fitted to any Indian machine, giving a comfortable seat for a passenger, is sold by the Hendee Manufacturing Company, of Springfield, Mass. The same concern manufactures the Indian carrier, adapted for attachment to any 1909 or 1910 loop frame model. It is very strong and rigid and of a large capacity. The Indian footrest consists of a heavy stud and fixed rubber pedal that can be attached to any loop frame machine by removing the nuts from the ends of one of the forward anchor bolts and screwing on the footrests in their place. Finally, this company's sprocket puller is very handy for removing sprockets from the driving shafts of motors without injury to any of the parts. This is a particularly useful tool for repair men or for anyone who has occasion to frequently change gears.



Indian Sprocket Puller.

N. S. U. SIDE CAR.

N. S. U. side cars are of the rigid variety, and very substantially built. This type of car has an extra strong and well-designed frame. The seat is coach built, and is luxuriously upholstered. An extra wide mudguard of smart appearance is fitted over the wheel, also a bracket for the lamp. The car can easily be attached or detached to a machine in a few minutes and is so constructed that the back wheel of the motorcycle can be taken out for repairs without necessitating the removal of the side car.

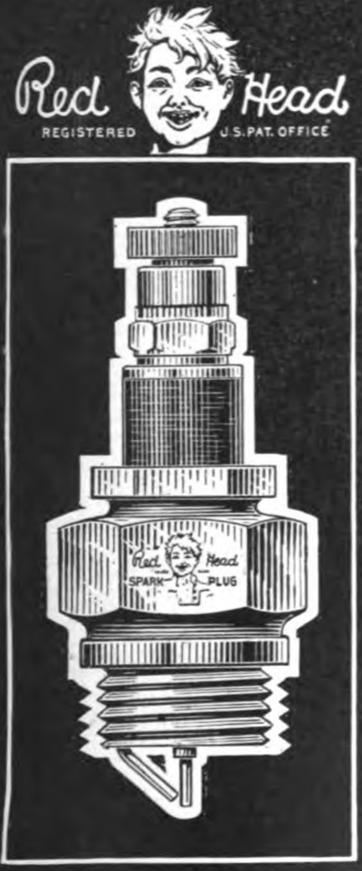


Indian Foot Rest.

Red Head

TRADE MARK

SPARK PLUG



The most successful Spark Plug ever placed upon the market.

Has the largest sale in all parts of the country.

The only Spark Plug with a uniform selling price in every part of the country.

The only Spark Plug with a porcelain guaranteed against cracking from heat.

The only Spark Plug safe for you to buy.

$1 for all sizes for all styles for Magneto. or Coil Ignition.

Thousands of dealers recommend them

EMIL GROSSMAN COMPANY, Manufacturer, 232 West 58th Street, New York

BRANCHES:

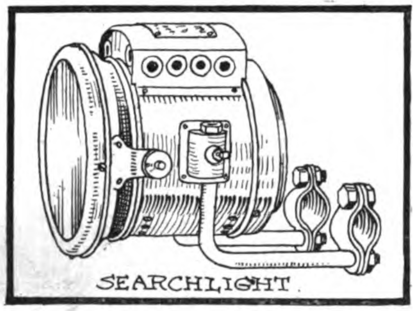
CHICAGO, 1436 Michigan Avenue

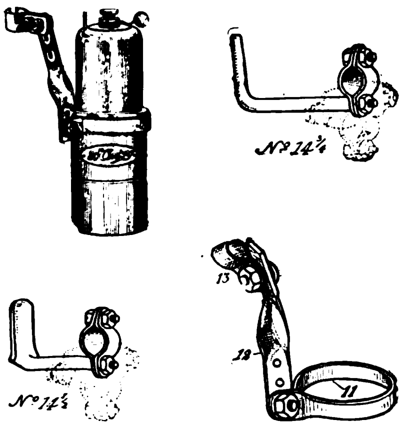
DETROIT, 874 Woodward Avenue

PACIFIC COAST, Pacific Sales Corp., 50 Van Ness Avenue, San Francisco, Calif.

THE TWENTIETH CENTURY.

SOLIDLY built, attractive in appearance, practical and durable, a lamp of which any rider can well be proud, is the Twentieth Century searchlight. This lamp is constructed of heavy gauge brass and is riveted throughout. It is equipped with a four-inch mirror lense reflector, ground to naval standard. These lamps are distinctive in that they are furnished with brackets to fit any motorcycle made in this country. The bracket clamps adjust to four positions, so that the lamp may be carried on the handlebars or extension forks. If the handlebars are V type, brackets may be attached and then bent into position. The Twentieth Century generator is the result of years of steady experience in making acetylene generators. Its specifications include carbide baskets with a sifting bottom of a capacity of ten ounces and a needle point valve which conducts water to the bottom of the carbide. The generator is easily fitted to any machine. The Twentieth Century Company also produces a heavy gauge brass motorcycle tail lamp, fitted with red glass, or white if that is specified. The address is 19 Warren street, New York City.





20th Century Generator and Brackets.

Rose Gas Lamp.

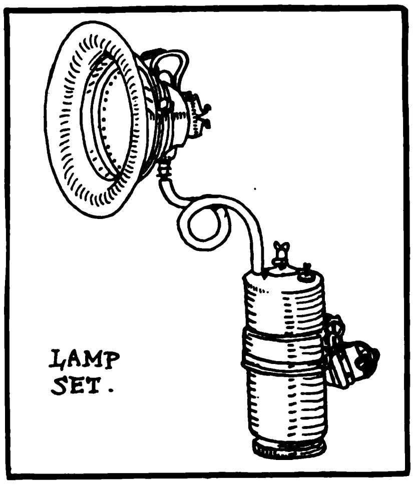
OIL AND GAS LAMPS.

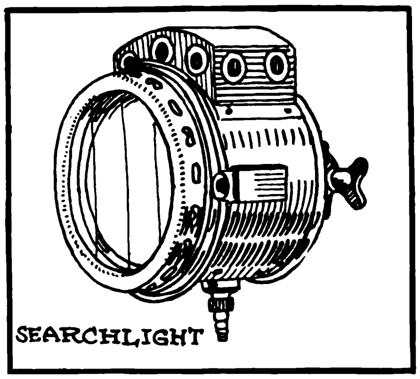
NEVEROUT motorcycle oil and gas lamps, made by the Rose Manufacturing Company, of 910 Arch street, Philadelphia, are backed up by a guarantee of satisfaction or the return of one's money. Behind that guarantee stands an integrity which has never been questioned. The Neverout oil lamp, with its reservoir filled with kerosene, will burn ten hours. The adjustable double clamp bracket holds the lamp in such position as to expose the red danger signal while it brilliantly illuminates the road in front. It has a patent, glass covered, German silver reflector and it is guaranteed to stay lighted. The lamp is finished in three styles—polished nickel, polished brass and gun metal. In addition to its oil lamp, the Rose people are also manufacturing a gas-fed head light outfit comprising, of course, both lamp and generator. The lamp has an especially constructed hood that throws all the light on the road and fully protects the eyes of the rider. It is equipped with two bracket holders and made of nickel-plate drawn brass. The lamp is fully riveted throughout and has no solder to melt from the heat of the light. The generator has the Neverout patent air cooling system, insuring cool and pure acetylene, preventing clogging of the burner or sputtering. This generator, simple, compact and convenient, furnishes six hours supply of acetylene gas.

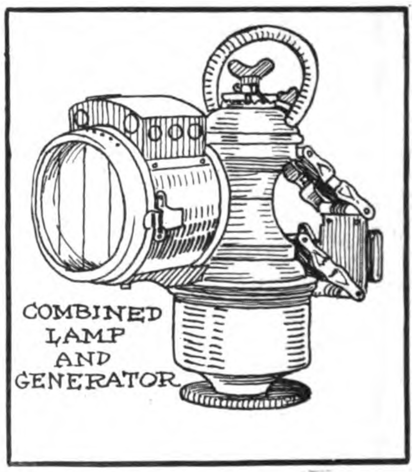
Rose Generator.

A VARIETY OF LAMPS.

MOTORCYCLE headlights and searchlights, combined lamps and generators and lamp sets, horns, plugs, etc., are featured by the Motor Equipment Company, 55 Warren street, New York. The combination lamp and generator has a mangin mirror lense reflector that projects a beautiful light, while the generator is very simple in operation, the complete outfit weighing only twenty-three ounces. It is finished in nickel. There are several types of headlights, among them a beautifully designed lamp of oval shape and very finely nickel-plated, with a hood which protects the face of the lamp from the elements.







AUTO-CYCLE SUPPLIES

EXCELSIOR
AUTO-CYCLE
CYLINDER OIL
SPECIALLY PREPARED FOR
AIR COOLED GASOLINE MOTORS
EXCELSIOR SUPPLY CO.
CHICAGO, ILL.
XLOR

Positively the best on the market. An insurance against lubricating troubles.

Rubber Goggles—Clean and Clear.

Excelsior Grips—Best Made.

French M. C. Horn.

No. 1402.
Finest Quality.

EVERYTHING YOU USE OR WEAR

On or With a Motorcycle

Our stock is the most complete in the country and we make immediate delivery of the right goods at the right price.

Our Excelsior lamp equipment, while specially designed for use on the Excelsior Auto-Cycle, is readily adapted to any standard machine, and is beyond question the most reliable and efficient acetylene lamp equipment on the market.

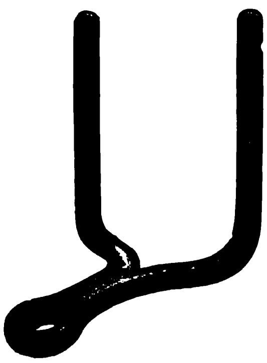
Our line of clothing is complete in every respect and includes the latest American and English styles.

No matter what you want, write us.

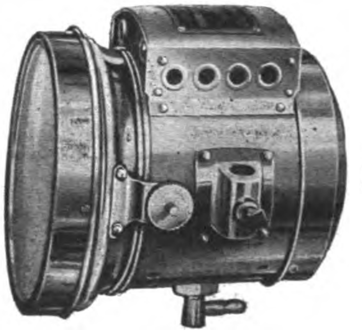
EXCELSIOR SUPPLY COMPANY
ESTABLISHED 1876
233-237 RANDOLPH STREET CHICAGO, ILL.

Excelsior Generator.

Special Motorcycle Odometer.

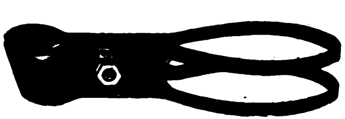


Excelsior Bracket.



Excelsior Side Bracket Lamp.

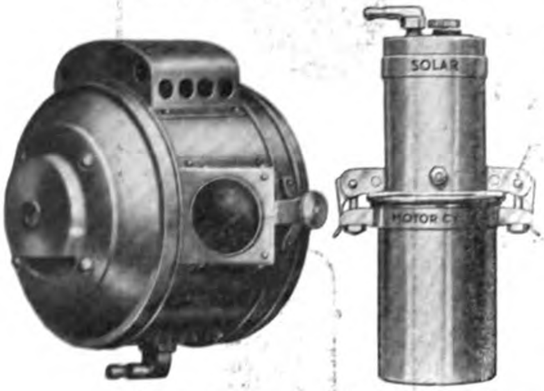
Tip Top Hat.



Excelsior Generator Bracket.

SOLAR SEARCHLIGHTS.

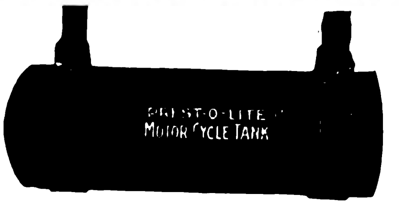
A SEARCHLIGHT type of lense mirror head light, designed along the lines of an automobile lamp, is made by the Badger Brass Manufacturing Company, of Kenosha, Wis., with New York offices at 437 11th avenue. This is the well known Solar lamp, made of heavy brass, reinforced and riveted in assembly. The lamp is 6 inches high and 4½ inches long with a remarkable B. & L. solar lense, mirror reflector, front glass, and five-sixteenth foot tip. The lamp is supplied with gas from a separate Solar generator. Another type of this lamp is fitted with a rear red light, arranged whereby two red jewels, one-half inch in diameter, are mounted on either side, showing clearly from the rear when the rider is seated, because the signals are set at an angle so wide that the body cannot obstruct both.



Solar Combined Head and Tail Light—Solar Generator.

PREST-O-LITE GAS TANKS.

FOUR thousand dealers located in all the principal cities in the United States, have Prest-O-Lite Tanks in stock, which they will exchange at all times for your exhausted cylinder. It is not commonly known by the users of Prest-O-Lite, of just what this little device is composed. The copper-plated, seamless steel cylinder with which the user is so familiar, is in fact only a wall of great strength for holding together the necessary elements which go to make up the device in its entirety.



Prest-O-Lite is a combination of acetylene dissolved in acetone, under pressure; this solution absorbed into porous asbestos bricks and the whole held together under pressure by a seamless steel cylinder with gauge, safety devices, and a valve to regulate the service of the device. The entire combination is made and prepared by secret methods and processes developed by the Prest-O-Lite Company.

In service, upon opening the valve acetylene is released from the solution in the porous material, and is forced out in such volumes that when mixed with the air at the burner, a steady, clear and pure white light is provided until the device is exhausted. The life or service of this device depends entirely upon the proportion, quantities and methods of preparing and combining its component parts. As long as the gauge indicates pressure, the device will produce a clear and pure light. The motorcycle tank is 4 x 12 inches in size, finished in triple nickel plate and burns 40 continuous hours, using a 1¼ foot burner. The address of the Prest-O-Lite Company is 246 East South street, Indianapolis, Ind.

* *

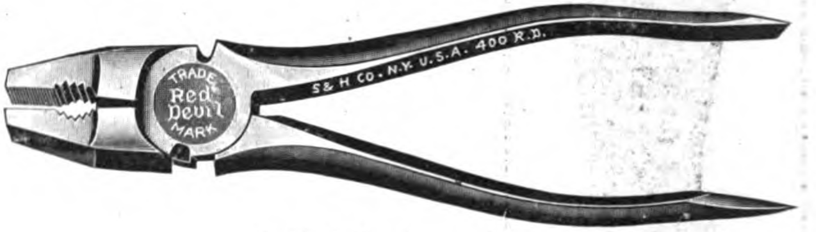
A COMPLETE LINE.

COLUMBIA acetylene - gas and oil lamps and generators are featured by the Hine-Watt Manufacturing Company, 45-49 Randolph street, Chicago. Head and tail lights, brackets and generators, flash lights, coils, connectors, battery ignition cables, spark plugs, ammeters, carbureters, oils and greases, pumps, horns, tools, etc, all of a great variety and backed up by the reputation of a well-established concern, which is in the Hine-Watt catalogue, which is well worth sending for.

* *

A "ONE-HANDED" WRENCH.

"RED DEVIL" hollow handle tool sets, with genuine cobobola polished handles and heavy nickel plated chucks, are among the products of the Smith & Hemenway Company, of 109-110 Duane street, New York City. This concern also manufactures good and serviceable pliers and an endless variety of small tools. They are featuring the "Yemco" quick set ball bearing wrench, easily operated with one hand. By pressing the button, as illustrated, the jaw slides to the nut to be gripped, holding to that point until released. A light battery, called the Ericsson, well adapted to motorcycle use, may also be had from this company.

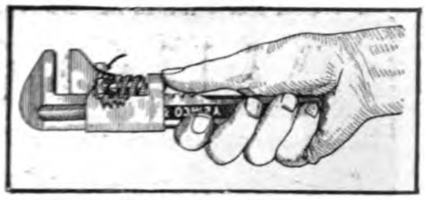


Smith & Hemingway Pliers.

* *

STANDARD WRENCHES.

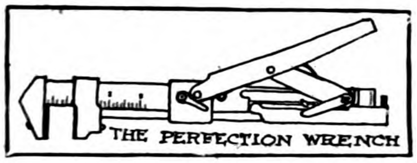
COES has long been synonymous with standard in the wrench field. The bars of Coes wrenches are composed of fully hardened and cold swaged steel and the jaw of extra heavy hardened semi-steel. The screw has a hardened ball race. The handle bar, of semi-steel casting, is internally supported and retained by cross riveting the extension of the part through the handle and riveting the same. The address of the Coes Wrench Company is Worcester, Mass.



The Yemco Wrench.

ANOTHER HANDY DEVICE.

PERFECTION wrenches are new, radically different in construction from any other wrench ever made. This wrench can be used as a vice, clamp, jack and tool holder. It is adapted for use on nuts and bolts of the most irregular shapes. It is easily and quickly locked and adjusted to any degree of pressure. The eight inch size sells for $2.00; with nickel finish it is fifty cents extra. The manufacturers are the Perfection Wrench Company, of Port Chester, New York.



* *

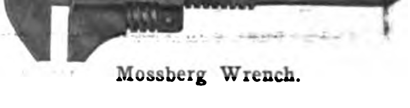
THE Standard Specialty Company, of Boston, manufactures a big, strong and durably-made belt fastener, called the Standard. It is case hardened throughout, and, having a hollow axle, is very light.

FOR GARAGE PURPOSES.

ANYONE who is contemplating the construction of a motorcycle garage would do well to write to S. F. Bowser & Co., 50 Church street, New York. This concern has established quite a reputation in the automobile trade in regard to its storage outfits and particularly its various types of gasoline tanks and appurtenances.

* *

POCKET wrenches, single or in sets, patent adjustable wrenches of the Sterling and other brands, in nickel-plated and mottled finish, thoroughly case hardened and fully guaranteed are manufactured by the Frank Mossberg Company, Attleboro, Mass.



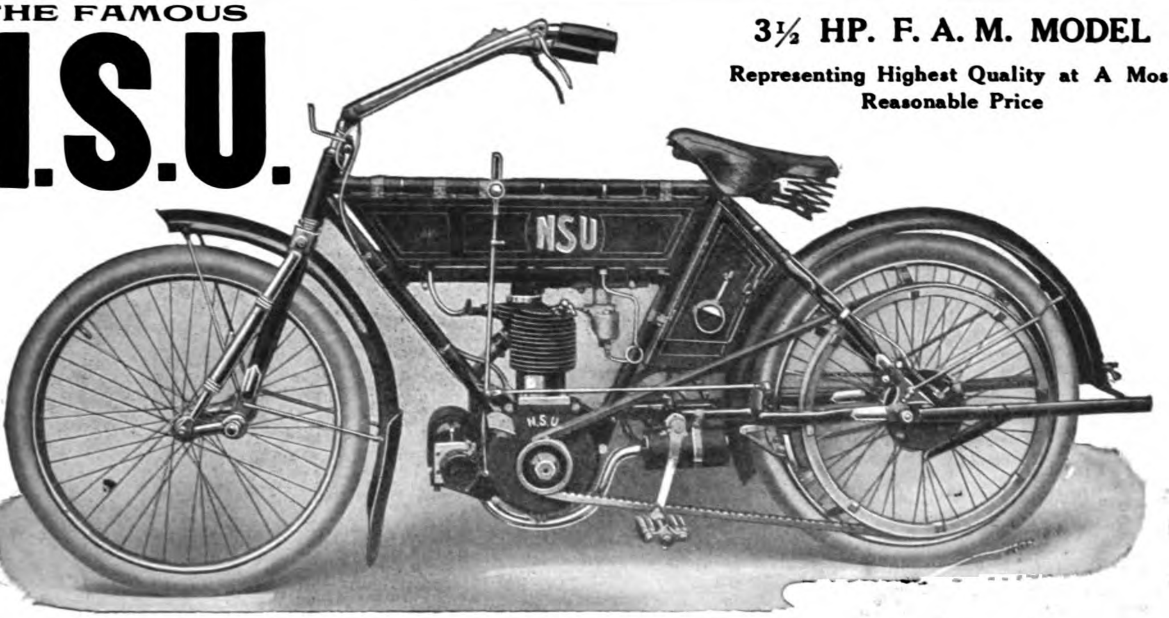
Mossberg Wrench.

THE FAMOUS

N.S.U.

3½ HP. F. A. M. MODEL

Representing Highest Quality at A Most Reasonable Price



Are You Interested in Twins?

or would a single cylinder motorcycle answer your purpose. Whatever your whim or desire, whatever your locality whether hilly or level, you will find an N. S. U. to suit, plus the refinement and quality which mean low cost of operation.

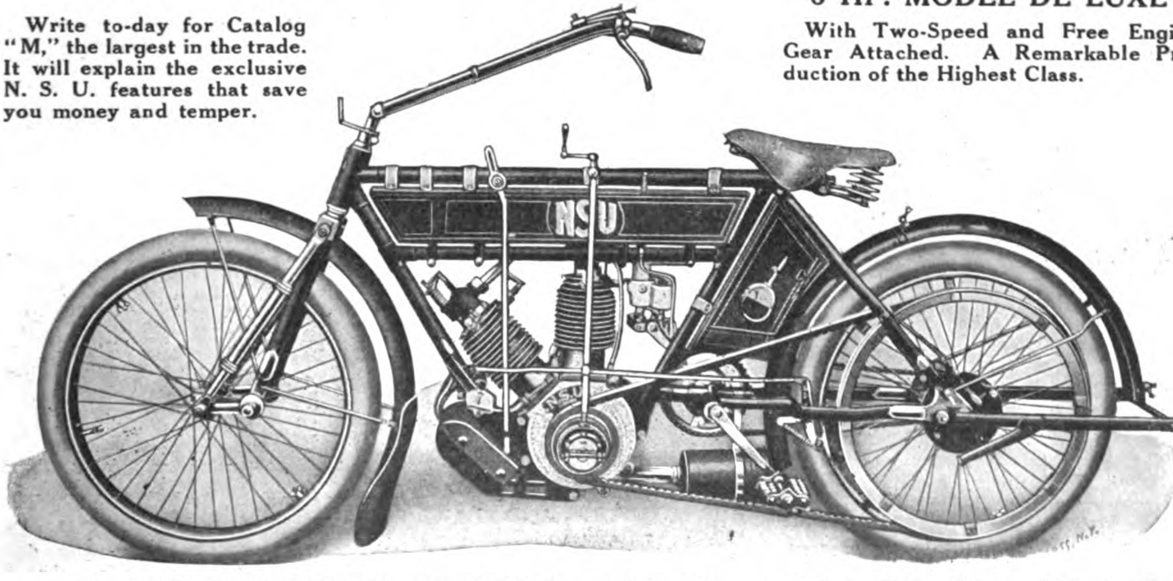
The 3½ HP. F. A. M. Model is not an experiment, copy or sensation. Ten years' experience has perfected it into a simple, powerful single cylinder motorcycle of refinement, offered at a price within the reach of all. Low, rakish and clean in appearance it has qualities in excess of all others costing more money.

The 6 HP. De Luxe is undoubtedly the highest class motorcycle on the market. It gives more power, more speed, more satisfaction in every way than has ever been offered before. It has won races in much better than a-mile-a-minute and has shown in long sustained road work exceptional durability.

Write to-day for Catalog "M," the largest in the trade. It will explain the exclusive N. S. U. features that save you money and temper.

6 HP. MODEL DE LUXE

With Two-Speed and Free Engine Gear Attached. A Remarkable Production of the Highest Class.

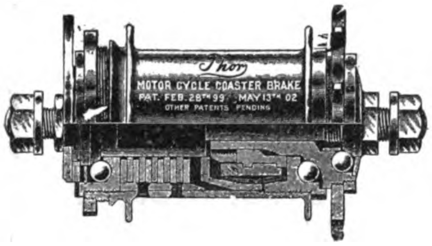


N. S. U. MOTOR CO. Members M. M. A. **206 West 76th St., New York City**

Gears & Brakes

THOR MULTIPLE DISC.

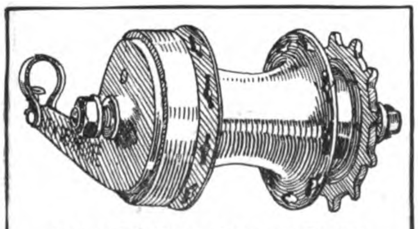
IN the Thor brake, manufactured by the Aurora Automobile Machinery Company, of Chicago, a multiple disc braking effect is obtained by ten small discs, half of which are keyed to the hub shell, while the rest are keyed to the axle and are prevented from rotating. The stationary and the movable discs are alternate, so that when they are pressed together from the end, they grip each other on two sides. A clutch, worm-mounted on the driving member, exerts this end pressure through a braking cone, when the pedals are moved backward. The cone, in addition to squeezing the friction discs together, also engages with a conical surface in the hub shell, further increasing the braking friction. When the pedals are driven forward, the driver forces the clutch over along the screw, into engagement with the shell in the ordinary manner. Stopping the pedals causes the clutch to back out of engagement, leaving everything free for coasting.



⁂

NEW DEPARTURE.

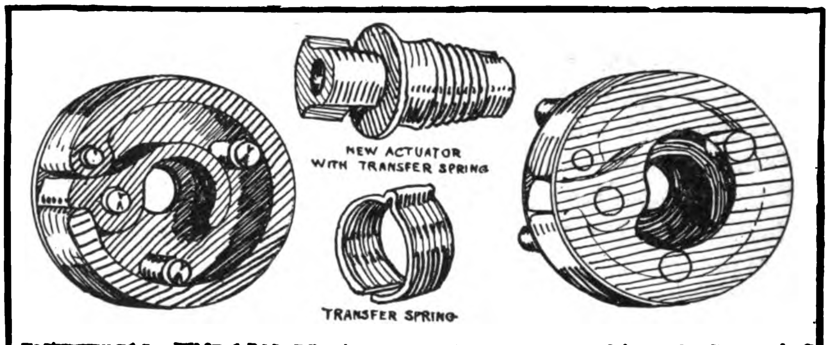
THE New Departure Manufacturing Company, of Bristol, Conn., makes an internal expanding band coaster brake which has stood the test of time and found not wanting. The popular concave design of former New Departure models is retained, also the essential mechanical principle. The principal change is in the brake itself. The construction of the new brake is exceedingly simple, consisting of only two working parts, the brake band and the brake lever. Both are made of heavy tool steel and practically indestructible. The brake band is ¾-in. wide and ¼-in. thick and circles the entire brake plate. The forward end of the band is anchored to the plate by a heavy stud, leaving the remainder of the band free. The lever is pivotted to the brake plate by a stud. The jaw of the lever fits snugly against the free end of the brake band and the toggle of the lever extends downward in half circular shape and engages with the new heavy brake actuator.



NEW DEPARTURE COASTER BRAKE

Upon applying back pedal pressure, the new actuator engages with the lever in such a way as to force the brake band into expansion contact with the brake drum at all points of the circle. The brake band expands against the direction of the rotation of the hub. This is a radical departure from the old model and renders it absolutely impossible for the brake to wind up, bind or lock. In the new model, also, the old trouble of "picking up" the pedals has been eliminated.

With the growth of motorcycle riding, this company realized the importance of perfecting a coaster brake that would be absolutely reliable and effective. The company's experts were put at work and the present model is the result. Before offering this model to the trade or the rider, it was thoroughly tested out over long runs and under the severest conditions of service on ordinary highways and on race tracks. Many of the tests were unfair and beyond what the brake will ever be called upon to do in actual service. These tests were all highly satisfactory and convinced the company that the present model is even more than is here claimed for it. With the brake constantly working against high powered motors for long distances, naturally producing a heated brake, the efficiency was not lessened or any of the parts harmed. At no time during such extreme tests did the brake lock or work unsatisfactorily in any respect.



INTERNAL EXPANDING BAND BRAKE MECHANICISM

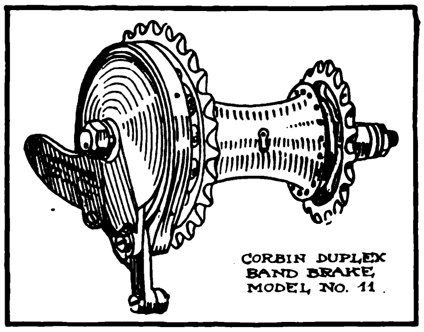
The "Innards" of the New Departure.

The company is also making a very fine model of new knock-out axle front hub for motorcycles and chime bells that are particularly adapted for motorcycle and tri-car use.

⁂

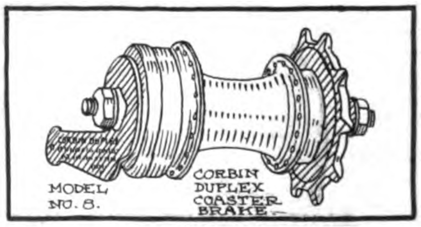
CORBIN COASTER AND BAND BRAKES.

DRIVING action in the Corbin Duplex coaster brake is obtained through the engagement of a cone with the hub shell. When the pedals are stationary, the effect is to force the driver back along the screw far enough to release the hub. When, however, the pedals are moved back the driving member engages the braking clutch by means of ratchet teeth cut in the corresponding faces of the driving and braking members, and the braking clutch is rotated according to the amount of the pedal movement backwards. This expands a set of three hardened tool steel rings against the hub, thus bringing the rear wheel to a stop.



CORBIN DUPLEX BAND BRAKE MODEL NO. 11.

The Corbin Duplex band brake has a concave rear hub with a large brake drum on the left side. Around the circumference of the drum is a very strong contracting band which is operated through a stout toggle arrangement when the pedals are moved backward. This brake has plenty of braking surface, is guaranteed not to stick or lock, as the braking surface is metal to a specially prepared asbestos band. No lubrication is required, although oil will not do the brake any harm. The same hub is used for both chain and belt driven machines.



MODEL NO. 8. CORBIN DUPLEX COASTER BRAKE

THE N. S. U. TWO-SPEED.

EVIDENCE that the N. S. U. two-speed gear can be thoroughly depended upon is supplied in the fact that five or six of the American manufacturers are now using the N. S. U. device, which has attained wonderful popularity throughout the United States during the past two

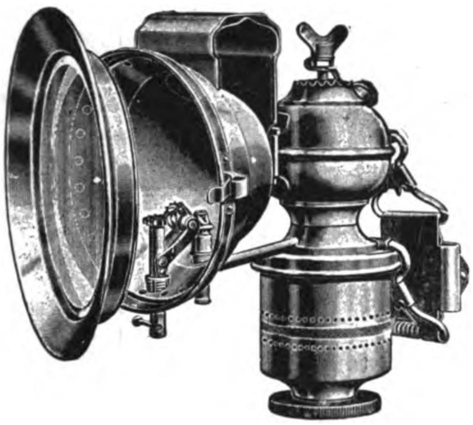
Accessories of Merit for the Motorcyclist

Dealers desiring to increase their accessory trade should get in touch with our goods, and our prices. Our line of sundries is the fastest selling, best money making proposition ever presented.

Every article we handle is in demand. We sell you nothing which would stay on your shelves.

WRITE FOR OUR TRADE PRICES NOW, while the season is young. Don't let this opportunity go by. We can help you increase your business.

Motorcycle Headlight.



A self-contained generator lamp for motorcycle use. Gives a brilliant light. Has fine nickeled reflector. Equipped with self-lighter. Entire height of lamp and generator 6¾ inches. Diameter of door in lamp 5 inches. Weight 15 oz. Furnished in nickel plate finish only.
No. 32A. Price **$3.50**

Motorcycle Headlight.

Beautifully designed oval headlight. Very finely nickel-plated. Nickel-plated hood protects face of lamp from storm. Gives a steady brilliant light in any weather. Diameter 5¼ x 6½ inches, depth 4 inches, weight 26 oz.
No. 53A. Price **$4.00**

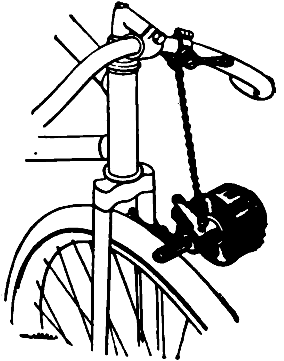
Motorcycle Headlight.

A miniature headlight that can be used for motorcycles or small touring cars. The light projected is very powerful, as the lamp is equipped with a mangin mirror lens, besides having a nickled interior; 8 inches high, 4 inches in diameter and 4½ inches in width.
No. 523. Price, each ... **$6.50**

Combined Lamp and Generator.

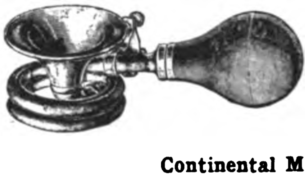
A combination of lamp and generator that is better than any ever devised for motorcycles. Lamp has a mangin mirror lens that projects a powerful light. Generator is very simple in operation. Complete outfit weighs only 23 oz. Bracket on any motorcycle will fit it. Supplied in nickel only.
No. 88. Price **$5.00**

Imported Motorcycle Siren Horn.



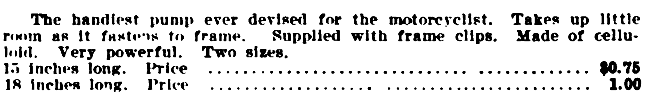
The best sounding horn ever devised for motorcycle use. Operates by being brought into contact with front tire. Controlled from handle bar with ratchet lever. Supplied in nickel finish. Horn has 3-inch bell.
No. 2. Price **$8.00**
(Complete, ready for attaching.)
No. 1. Price **$6.50**
(Without ratchet lever attachment.)

Bulb Horn.



Used mostly on motorcycles, runabouts and on rear of tonneaus. Triple-twist construction produces a deep penetrating tone. Supplied in nickel or brass.
No. 10. Price **$2.25**
(Bell 3¼ in.)
No. 11. Price **$3.00**
(Bell 4 in.)

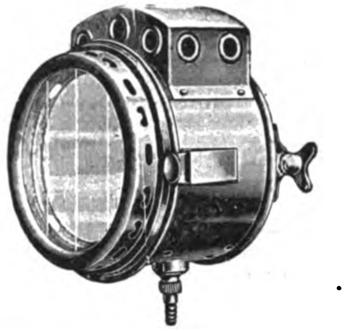
Continental Motorcycle Pump.



The handiest pump ever devised for the motorcyclist. Takes up little room as it fastens to frame. Supplied with frame clips. Made of celluloid. Very powerful. Two sizes.

15 inches long. Price	**$0.75**
18 inches long. Price	**1.00**

Motorcycle Searchlight.



Fitted with mirror lens, which gives it tremendous lighting ability, and also has split glass for diffusing light and preventing breakage.

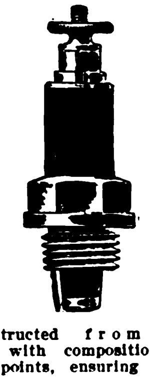
Lamp is 4 4-5 inches high. Diameter glass in door 3 inches, and weighs 9 oz.
No. 106. Price, each **$3.00**

Motorcycle Lamp Sets.

All nickel headlight with highly polished interior, giving a splendid dazzling light.

Set consisting of No. 55A Lamp, diameter 5 inches, depth 4½ inches, weight 12 oz. and Generator No. 55B, height 5¼ inches, diameter 2½ inches, weight 12 oz.
Price per set **$6.50**

French Mica Plug.



Constructed from amber mica, with composition platinum points, ensuring positive spark.
No. 160. Price .... **75c.**
(½-inch and Metric.)

If You Desire More Business and Increased Profits Write Now to

THE MOTOR CAR EQUIPMENT CO., 55 Warren Street, New York

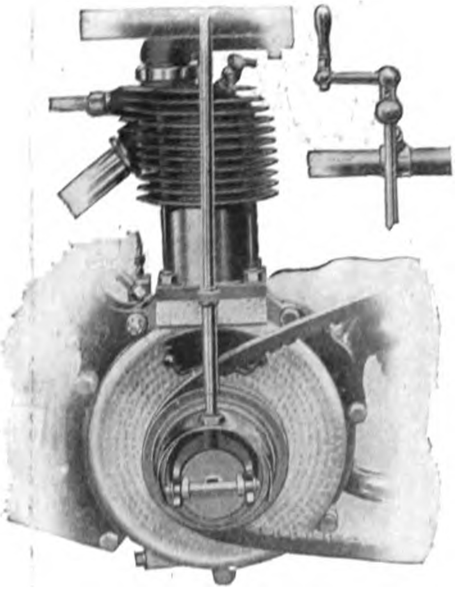
Largest Importers of Motorcycle Accessories in America.

or three years. The gear is attached to the motor direct and permits the rider to start his machine under the most unfavorable conditions, whether in deep sand or on a steep hill, without having to either push or pedal. Then, again, the high and low gear arrangement allows the rider to traverse sand or mud at a walking pace, which is also a most desirable thing in negotiating heavy traffic.

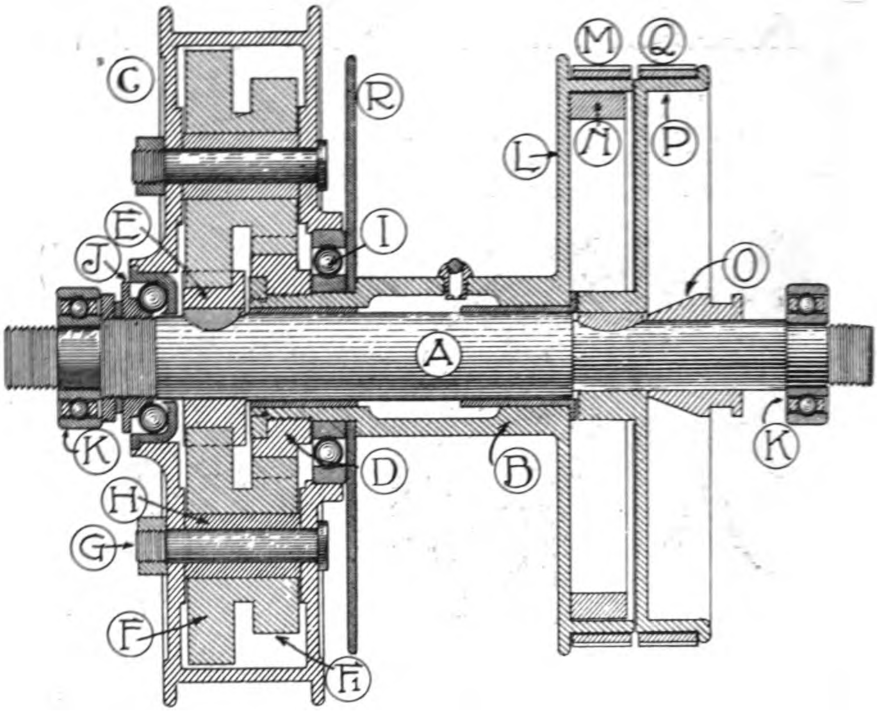
The gear is on the sun and planet system in which several small spur wheels work between and in mesh with a large internally-toothed ring and a small externally-toothed wheel, so that the holding or releasing of the center wheel, the internally-toothed ring or the ring holding the intedmediate wheels alternately gives the necessary changes in gear. In this case, the low gear is obtained by holding the central wheel fast, and driving the internally-toothed ring, fixed to the motor axle, thus driving the intermediate wheels, fixed to the belt pulley, round the central wheel, at a speed 35% less than the speed of the motor.

The change of speed is effected by means of a rod with a handle which is clamped to the top tube of the motorcycle. This handle when turned to the left, so that the shoulders of the forked piece 29 are touching the rollers 32, brings the high or normal gear into action and allows a direct drive after the manner of an ordinary pulley. When turned from the high gear position to the right (as far as the handle will go) so that the rollers 32 are at the extreme end of the part 29 mentioned above, the low gear is obtained.

If the handle is turned midway between the above two positions mentioned, it will withdraw the clutch, and allow the engine to run free; the latter position is between that of the high and low gear. In heavy traffic, when driving on the low gear, half a turn of the handle to the left will be sufficient to obtain a free engine. Owing to the method of engaging it there is no chance of stripping the gear.



N. S. U. Two-Speed Gear.



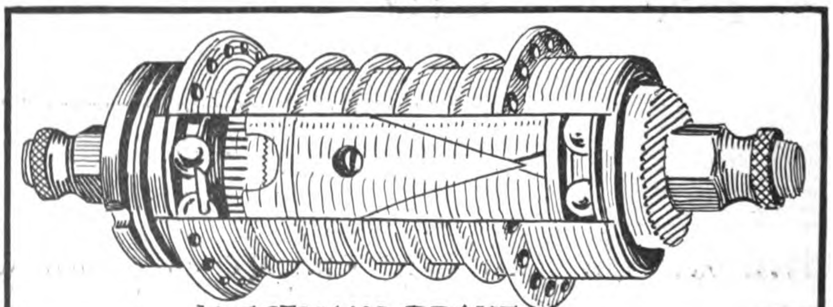
Keller & Risque Two-Speed.

K. & R. TWO SPEED.

K. & R. two-speed and free engine gears are especially designed to satisfy the ever-increasing demand of riders for a device that will give the average of high speed on level roads and for ordinary use, and at the same time the proper conditions for emergencies which confront one in deep sand or mud or on steep hills. The gears are made of steel, hardened and ground and show no apparent wear after thousands of miles of running. The gear box and brake, drum and low gear drum are turned from special material. All parts are interchangeable. For high gear compensation is provided by a regulating screw on the outside of the low gear drum. The reduction is 50 per cent. The makers mention the following among the advantages which attach to K. & R. conversion sets:

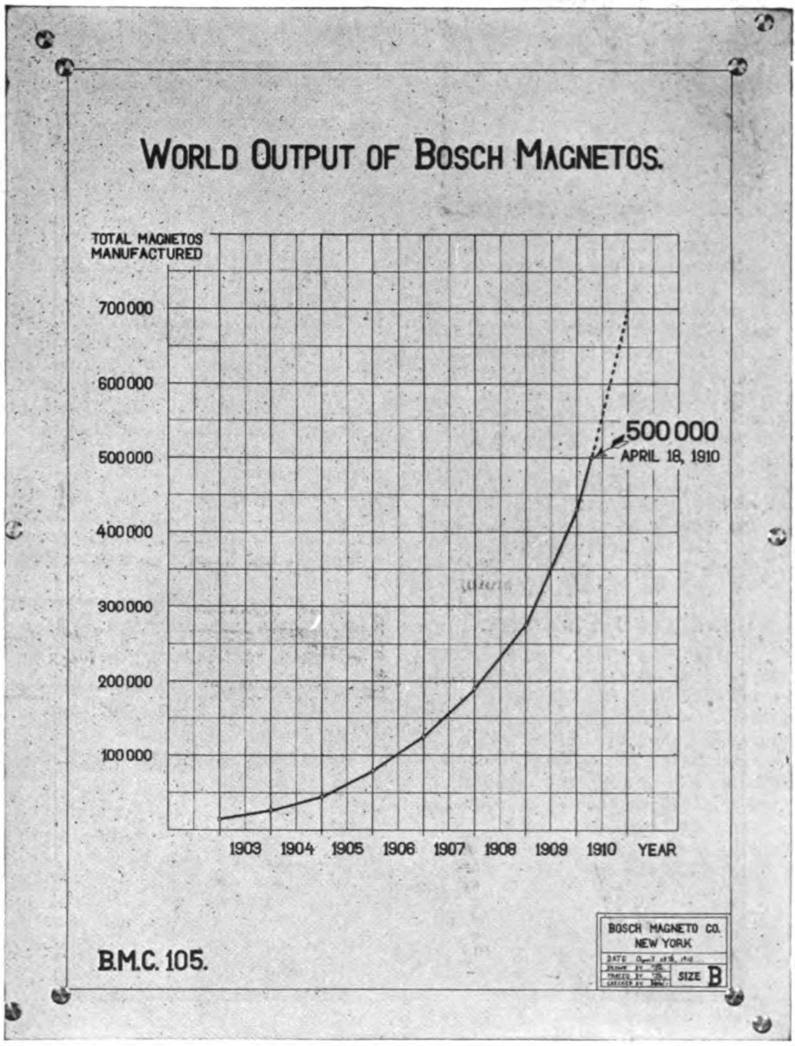
Hand starting with crank (no use for pedals or stand). Ascent of any hill without pedal exertion or straining of motor. Ease of control in congested streets. Safety on rough, sandy or muddy roads. Capacity to start from standstill or any up-grade and turn completely in any road. For delivery van or side car work, increases efficiency one hundred fold. Both high and low gears are operated by friction clutches, with the result that one can start from a standstill without jar or jerk and glide away with all the smoothness of an auto.

The lettered parts shown in the illustration reproduced herewith are as follows: *A*, the *live axle*; *B*, main hub shell; *C*, gear box; *E*, axle gear; *F*, large planetary gear; *F1*, small planetary gear; *G*, stud supporting planetary gear; *H*, steel bushing for planetary gear; *I*, imported "F & S" ball bearings, supporting inner flange of gear box; *J*, adjustable ball bearings for outer flange of gear box; *K*, main ball bearings ("F & S" Imp.) for live axle; *L*, hub flange serving as a brake by setting band *M*; also locking gear on high when expansion ring *N* is set through the action of the sliding cone *O*, locking all parts and causing hub and gear box to revolve together. *P*, axle flange. The setting of brake band *Q* on this flange obtains low gear by holding live axle *A* with its gear *E*, stationary and causing the planetaries to revolve on their own bearing *G*. Through the two to one reduction of gear ratio, hub *B* revolves once to every two revolutions of the gear box; *R*, left spoke flange for the road wheel.



MUSSELMAN BRAKE.

HALF A MILLION BOSCH MAGNETOS



This Production Chart speaks eloquently of Bosch quality, and the ignition you ought to have.

The manufacturers of the following motorcycles equip with Bosch Magnetos:

Bradley
Crown
F. N.
Hilaman
Harley-Davidson
Indian
Merkel
M-M
Marathon
Marvel
N. S. U.
Reading Standard
Royal
Thiem
Thor
Yale

Specify Bosch When You Buy

If you haven't read "The Bosch News," why not begin now? It tells about Bosch equipped motorcycles, cars, boats, etc.—beautifully illustrated. It is free to every one who asks by letter, phone or postal. June number will be a special motorcycle issue.

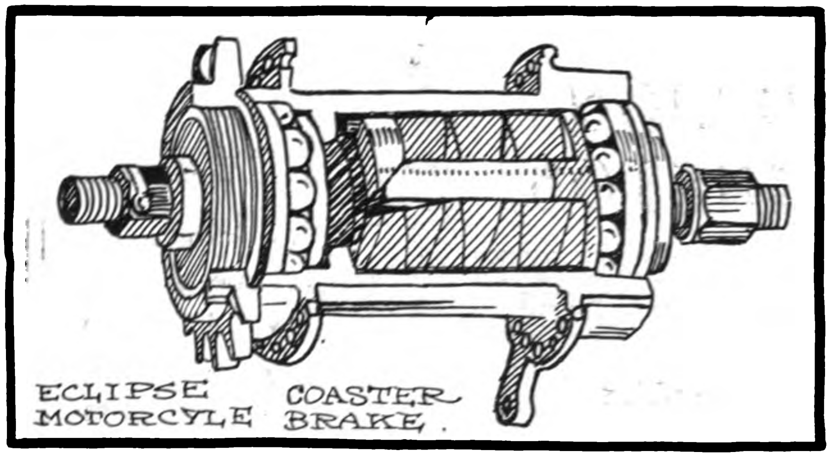
BOSCH MAGNETO COMPANY

223-225 West 46th Street **NEW YORK**

CHICAGO
1253 Michgan Avenue

DETROIT
870 Woodward Avenue

SAN FRANCISCO
357 Van Ness Avenue

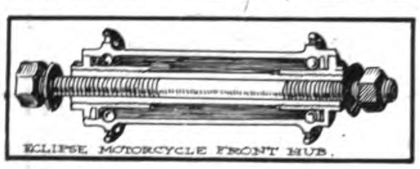


ECLIPSE MOTORCYLE COASTER BRAKE.

FREE ENGINE AND BRAKE.

FEATURING the motorcycle output of the Eclipse Machine Company, Elmira, N. Y., is the Eclipse free engine pulley, which can be applied to any belt-driven machine, and is part of the equipment of the following 1910 models: Merkel-Light, Harley-Davidson, M. M., Emblem, Racycle, Greyhound, Yale, Curtiss, Marvel, Wagner, Royal Pioneer and the Reading Standard.

The Eclipse device is applicable to any belt-driven engine. It comprises a cone clutch on the crank shaft, and is incorporated in the pulley. Merely pulling a wire or lever throws the clutch out of engagement with the pulley and permits the latter to run idle, which means that although the engine is operating it is running free, and will not transmit power to the rear wheel until the clutch and pulley again are thrown into engagement.



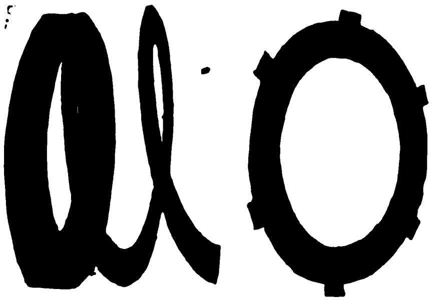
ECLIPSE MOTORCYCLE FRONT HUB.

The Eclipse people also manufacture brakes and front hubs, already described in this paper, and their head fittings. The latter consists of upper and lower ball shell, upper and lower ball cones, lock washer and lock nut. The parts are all nickel-plated and finished in Eclipse quality. These fittings are for 1 5/16 inch head (inside measurement) and take ¼ inch balls.

☙ ☙

A BRAKE LINER.

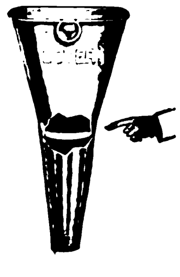
THE brake of the machine is really the most important part of its entire construction, inasmuch as the actual safety of every rider depends very largely upon the efficiency of his brake. The latter circumstance in its turn is closely identified with the quality of the brake lining. In this connection attention may be called to the fact that Raybestos is claimed by its makers to have a very high co-efficient of friction, that it is impervious to heat, oil or gasoline and all but indestructible. It may be had in thicknesses of ⅛, 5/32, 3/16 and ¼ inches and in widths from 1 to 4 inches. Raybestos is manufactured by the Royal Equipment Co., of Bridgeport, Conn.



☙ ☙

FUNNEL AND STRAINER.

A FUNNEL with a fine brass strainer, designed by a practical rider for the use of motorcyclists, is manufactured by the Dover Stamping and Manufacturing Company, of Cambridge, Mass. This fitment, a very handy one, is heavily copper-plated and will stand any amount of wear. Its length at the top is only 2⅝ inches and its width there 1⅛ inch. The height is 5½ inches and the outlet of the spout ⅝ of an inch. The funnel sells for a half simoleon and is a bargain at the price.



☙ ☙

MUDGUARDS.

NINE different patterns of motorcycle guards, also guard braces and chain guards are manufactured by the International Stamping Company, of Chicago. The mud guards are made of 18-gauge steel, 2⅝ inches wide, also of 20-gauge steel, 3¾, 3⅝ and 4 inch widths. Guards of 18, 20 or 23 gauge steel of any length with rolled edge and corrugated center are also supplied and special guards to order.

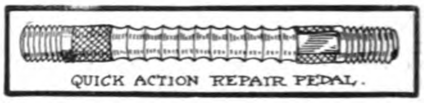
MUSSELMAN'S AIR-COOLED BRAKE.

MUSSELMAN'S armless air-cooled brakes are so well known as to require no introduction to the trade. These brakes give good service because their cooling flanges prevent them from getting hot and also because the braking surface is so large, being 15 square inches. Musselman's brake has a short pitch, giving the rider a tremendous leverage in applying it, and a large axle to prevent bending or giving away. The brake has no side arm, thus, permitting of no undue leverage on the rear fork. The grease chamber is large enough to keep the brake lubricated during an entire season. The bearings are also unusually generous in size. This brake is made by the Miami Cycle & Mfg. Company, of Middletown, Ohio, builders of the Racycle machine.

☙ ☙

BRAZING AND SOLDERING.

A COMPLETE treatise on brazing and soldering is embodied in the 1910 catalogue just issued by the Universal Fluxine Company, of Urbana, Ohio, manufacturers of Universal Fluxine, for brazing cast iron and high speed steel; Universal Soldering Fluid for soldering all metals; Acme Brazing Compound for general work; gas and gasoline forges, etc. This booklet is quite thorough in its treatment of the brazing and soldering of all metals, including aluminum, and it will be found handy in any shop.



QUICK ACTION REPAIR PEDAL.

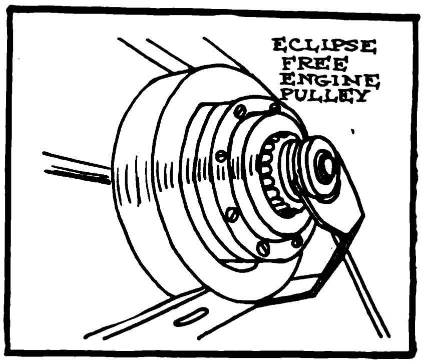
Henry T. Adams, Chicago.

SPECIAL MILL WORK.

COLD pressed products from iron, steel, copper and brass, flat stamping and specialties in screw machine work are featured by the John R. Keim Mills of Buffalo, New York. This company will send its catalogue and price list to any one who may be interested. For motorcycle use this concern specializes in fork crowns, front fork sides and a splendid hanger.

☙ ☙

ELECTRICALLY welded seamless steel tubings of various sizes, shapes and gauges, forks, rims, mud guards, etc., are among the motorcycle products of the Standard Welding Company, of Cleveland, Ohio.



ECLIPSE FREE ENGINE PULLEY

The

GOODRICH "ROADSTER"
MOTORCYCLE TIRE

GOODRICH MOTOR CYCLE TIRE
MFD BY THE B. F. GOODRICH CO AKRON O
28 X 2½

The White Tire For 1910

THE QUALITY

The **COLOR** is one of the most significant features of **The Roadster.** Just as the Goodrich trade-mark indicates quality, so the **WHITE** identifies the **Roadster** with that class which includes that wonderfully long-wearing Motorcycle Tire, **The Goodrich White Heavy Tread.** The principle of manufacture that has given durability, resilience and long life to the rubber of the **White Heavy Tread** has been applied to the making of **The Roadster.** The **Color** of this new tire declares its quality.

THE PRICE

THE PRICE of **The Roadster** assures its popularity. It is as low in price as any Motorcycle Tire on the market and it is within the means of every Motorcycle owner.

Supplied in four sizes, as follows: 26 x 2¼, 26 x 2½, 28 x 2¼, 28 x 2½, with either endless or butt-end inner tube.

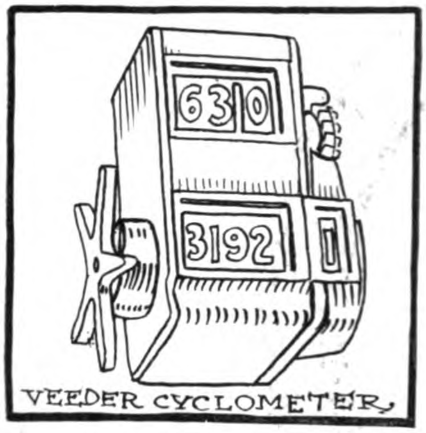
(Repair Kit and Pump furnished at an extra charge of 50 cents.)

THE B. F. GOODRICH COMPANY, Akron, Ohio

Speed Indicators

LOW-PRICED CYCLOMETER.

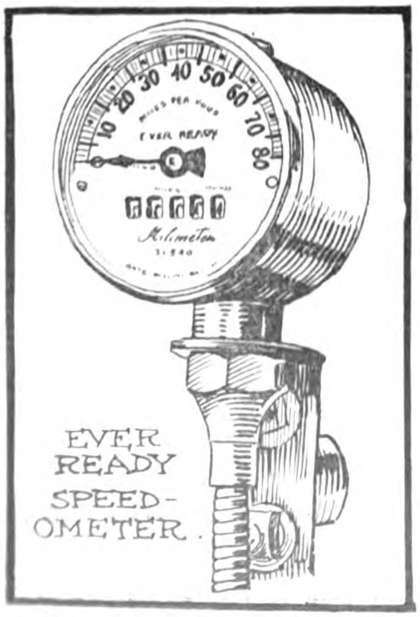
MADE to accommodate the hard usage to which a cyclometer is subjected on a motorcycle, accurate, and at the same time remarkably low in price, the Veeder trip cyclometer is a very liberal money's worth for $3.00. The register gives both the total and the trip miles. The miles are painted in white figures on a black background, the tenths of miles in red. The cyclometer is made to fit either 24 or 26-inch wheels. The price includes a heavy and very durable striker and a new adjustable bracket, which can be made to fit any machine.



VEEDER CYCLOMETER

⁂

ATTACHMENT of the speedometer to the rear wheel has been tried with no small measure of satisfactory results by the Auto Improving Company, manufacturers of Every Ready motor improvements and products, 304-22 Hudson street, New York. For some time, in the face of radical objection, this company has taken a positive stand that the most practicable method of fitting an instrument was to the rear wheel.

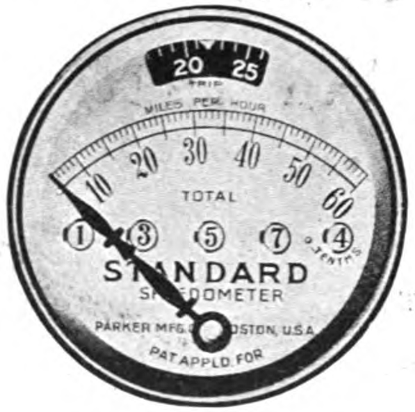


EVER READY SPEEDOMETER.

⁂

STANDARD ACCURACY.

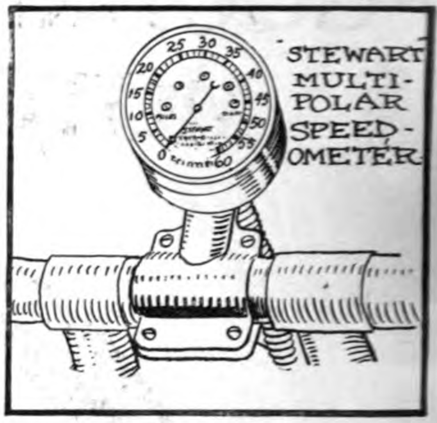
SWIVEL-NUT fittings are the special features which characterize the attachment of Standard speedometers to such machines as the Indian, Excelsior, Harley-Davidson, Yale, Curtiss, New Era, etc. This is the second season that the manufacturers, the Standard Thermometer Company, 65 Shirley street, Boston, have used this form of attachment, which insures an even drive and gives a steady hand to the speedometer. The object of this form of fitting is to maintain a fixed relation between the driving gears and to prevent oscillation such as would necessarily follow if the attachment were rigidly fitted to any part of certain makes of forks. The purchaser has the choice of either thirty or sixty mile dials for the same price, complete with all the fittings, or at a slight extra cost a speedometer combined with a one hundred trip odometer, with all of the necessary appurtenances. Standard speedometers are guaranteed against all mechanical defect. Should any defect due to workmanship or material develop in the instrument, it will be repaired free of charge if returned to the factory carriage prepaid.



⁂

MULTIPOLAR SPEEDOMETERS.

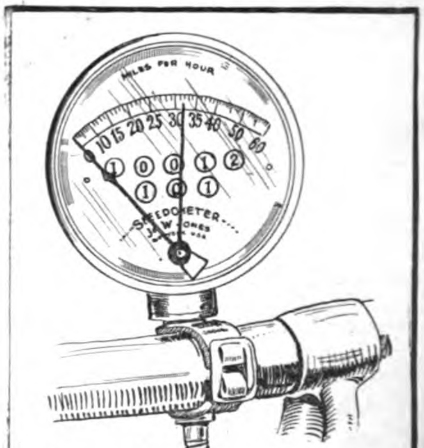
BEAUTY of design, simplicity of construction, accuracy and lasting qualities characterize the Stewart Multipolar Speedometer, manufactured by the Stewart & Clark Manufacturing Company, of Chicago. It has a long reading scale, steady pointer, ball bearing swivel joint and only two moving parts. Model No. 21 has a 2½-inch dial, sixty mile speedometer and 1,000 mile season odometer. Model No. 22 has a ninety mile speedometer and a 10,000 mile season odometer also. Model No. 26 has a three-inch dial, sixty mile speedometer, 10,000 mile season odometer, and an automatic resetting trip register.



STEWART MULTI-POLAR SPEEDOMETER

THE JONES.

JONES' speedometers are attached to the fork of the wheel by means of a support clamp and driven by flexible shaft and gears. These instruments contain all the features and refinements that are found in the Jones' auto speed indicators, with a world-wide reputation for accuracy and reliability. The speedometer is attached to the handle bar, directly in front of the rider, with substantial brackets. The copper maximum hand in model No. 32 contrasts with the black variable speed hand. It is carried forward by the latter but stops automatically at high speed, showing that speed as a permanent record until released by a push of the resisting stem. When released it immediately returns to the speed at which the machine is at that moment traveling and remains there until subsequently stopped. Model 31 is produced without the maximum speed hand. It, as well as model 32, indicates the speed up to 60 miles per hour and also records in miles and tenths the total or season's mileage and the trip or day mileage.



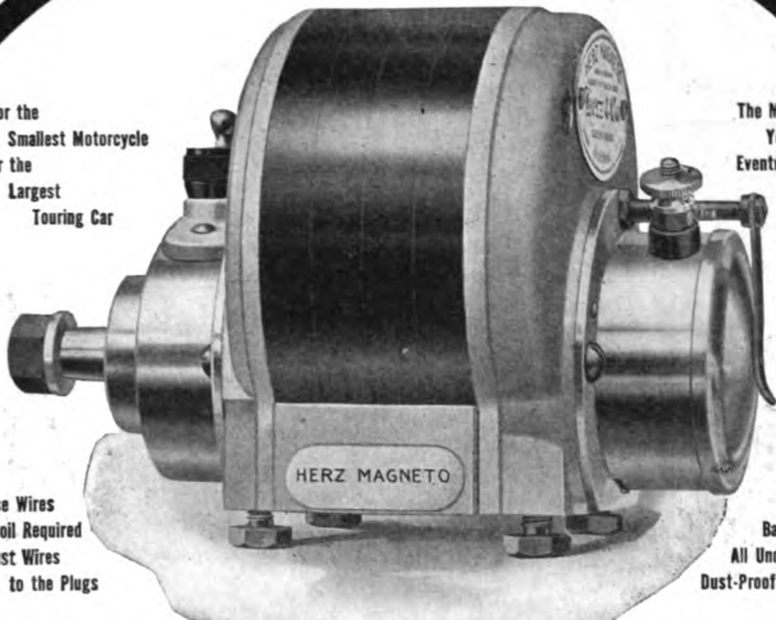
JONES SPEEDOMETER

HERZ-MAGNETO

(Made in Germany)
WEIGHT 5—6 LBS.

For the
Smallest Motorcycle
or the
Largest
Touring Car

The Magneto
You Will
Eventually
Use



No Loose Wires
No Coil Required
Just Wires
to the Plugs

All
Ball Bearings
All Under
Dust-Proof Cover

The greatest value in magnetos ever offered. Absolutely dependable. Made to outlast any motor.

You want the FAT, HOT ARC FLAME from the Herz Magneto and not the thin, faded spark from a low-tension magneto with a coil.

Used all over Europe and pronounced the best magneto ever made. Most Power—Greatest Economy

—WRITE FOR OUR PRICES—

The HERZ-PLUG

"BOUGIE MERCEDES"
(Special Motorcycle Type)

Is the Only Plug that's Guaranteed a Year!

No Bother--No Correspondence
No Delay--No Red Tape

Once Installed, the Plug Needs Never to be Touched

No Cleaning--
No Cracking Porcelain

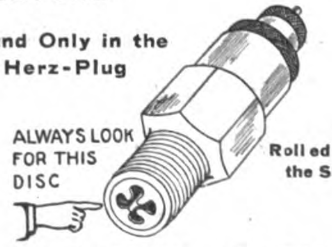
All Types and Threads
(Special Magneto Types)

$1.50 at Dealers, or Postpaid Everywhere.

BOUGIE MERCEDES
HERZ & CO. NEW YORK

A NEW AND HIGHLY IMPORTANT FEATURE

Found Only in the Herz-Plug



ALWAYS LOOK FOR THIS DISC

Rolled into the Shell

PLATINUM ALLOY
4-POINT
DISC

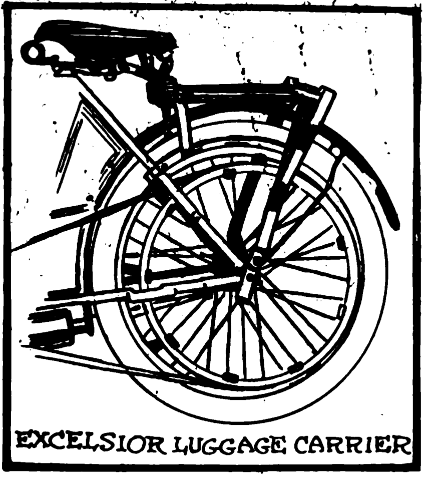
Will Not Burn Away!
Not Affected by the Current
Can be adjusted to suit the compression of any motor
THIS NEW CONSTRUCTION greatly increases the life of the Plug

LARGEST MANUFACTURERS OF **ASBESTOS COPPER GASKETS** IN THE WORLD

HERZ & CO. 295 Lafayette St, N.Y.

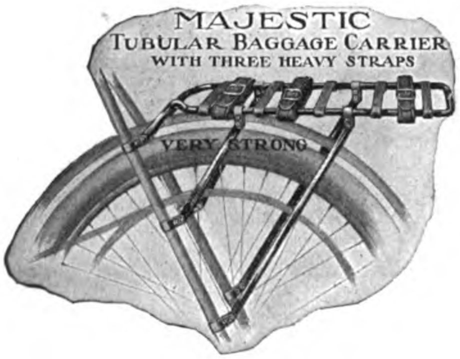
Kindly always mention the paper when writing to advertisers.

A PRACTICAL CARRIER.



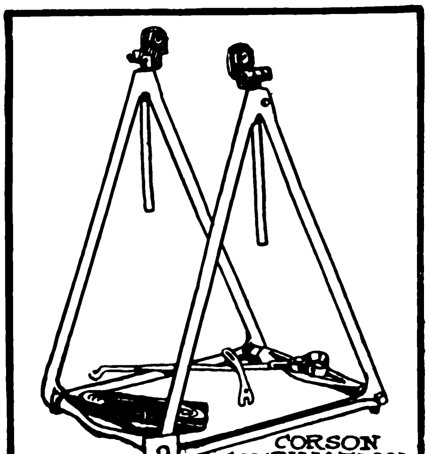
ONE of the best stands and luggage carriers on the market is produced by the Excelsior Supply Company, of Chicago, makers of the Excelsior Autocycle. This company's stock of supplies, among them leggings, horns, lamps, hats, goggles, etc., is one of the most complete in the country.

* * *



THE Majestic stand is unique in that it holds the frame at four points, thus preventing any straining or twisting of the lower frame tubes. It is fitted with heavy legs having triggers at the bottom, allowing them to be folded up by a push of the foot. The address of the Majestic Manufacturing Company is Worcester, Mass.

* * *


3
CORSON COMBINATION STAND AND BAGGAGE CARRIER

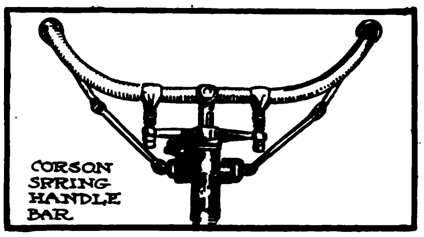
SWENSON CARRIER AND STAND.

B. A. SWENSON, of Providence, R. I., gets out a novel luggage carrier which is conveniently and easily mounted on the handle bar and fitted with a patent spring buckle and extra long strong leather straps. It is finished in nickel and made in two sizes to fit ⅞ and 1 inch handle bars. A heavy durable stand mounted on ball bearings and permitting a motorcycle to be moved in any direction is manufactured by Swenson. This stand is adapted to repair shop or show room use.

* * *

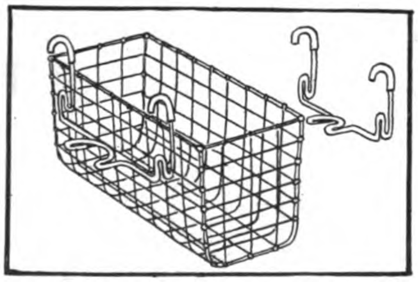
HANDLEBAR—STAND.

RIDING on a machine with a Corson spring handlebar, manufactured by the Motorcycle Specialty Company, 258 Columbus avenue, Boston, is said to be a thoroughly enjoyable experience. This bar is designed to eliminate all shocks and jars on the hands and can be applied to any machine.



Another specialty produced by this same concern is the Corson combination motorcycle stand and baggage carrier, one of the neatest, lightest and strongest devices of its kind on the market. In addition to the equipment shown in the cut, the company includes an attachment for holding a bundle of any reasonable size, so that it can be taken from the carrier without being undone when the latter is needed for use as a stand.

* * *



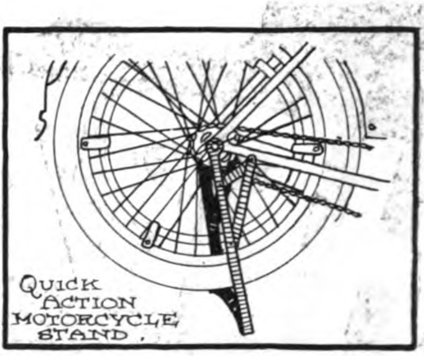
FOR YOUR LUGGAGE.

A STRONGLY built and at the same time light luggage carrier is manufactured by the Dowe Wire & Iron Works, of Louisville, Ky. It can be put on or detached with ease in a few moments and it is to be had at a very moderate price. There are several styles and types suited to different requirements.

* * *

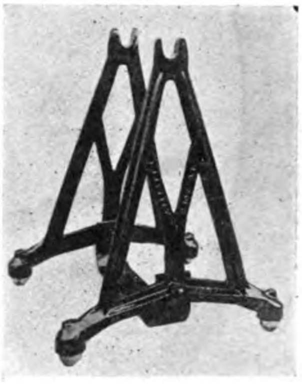
A. & J. CRANK HANGERS.

A. & J. motorcycle hangers have a bracket 4 inches wide bored for 2 inch cups, outside joints, lugs for ⅞ inch rear forks and 1¼ inch seat post mast. The forward lug is bored 1¼ inch and is set at proper angles for a drop frame to take a large motor. The seven inch cranks with two piece round taper fastenings are simply and accurately machined. The sprockets have 8, 16, 20 or more teeth and are adapted for 3/16 or ¼ inch chains. The cranks clear 5 inches as regularly made up, but they can be offset as desired, or made with long axles to give any width. The hanger is furnished complete with cups and cones.


QUICK ACTION MOTORCYCLE STAND.

Henry T. Adams.

* * *

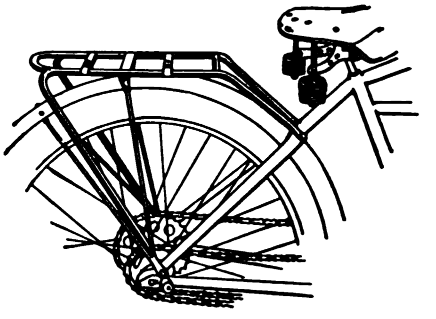


Swenson Stand.

WHEEL INSURANCE.

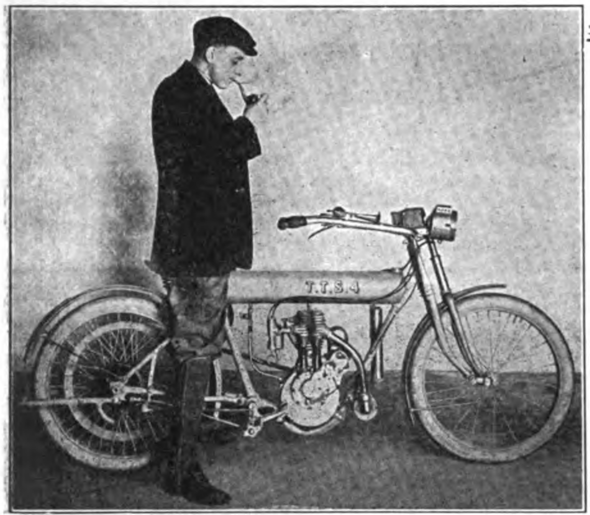
AMERICAN-STEPNEY SPARE WHEEL COMPANY, 1780 Broadway, is the title of a concern which has, in the past few months, made rapid advances in the motorcycle field. It manufacturers a motorcycle clincher rim that has made a big impression wherever it has been tried out. It is well constructed of first-class materials. The fitting of an American-Stepney Spare Wheel rim is the best kind of wheel insurance a man could buy.

* * *



Indian Carrier.

THIS neat and cleverly made luggage carrier is described on page 50 of this issue.



PERFECTLY CONTENTED

IS THE RIDER OF A

LOW BUILT, UP-TO-DATE

"TOURIST"

TWO-SPEED MOTORCYCLE

for he has EVERYTHING, in the way of improvements and convenience, that puts the finishing touch of perfection to the thoroughly practical motorcycle.

The low lines, comfortable riding position and perfect balance of the Tourist have been worked out by its makers, in actual experience on the road, and we are catering to the discriminating buyer—the rider who knows.

We illustrate the T. T. S. 4 (Tourist Two-Speed 4 H.P.) with its low frame, two-speed, free engine, band brake, ball bearing motor, imported carburetor, etc., and would like to send our 24-page Catalog explaining exclusive tourist features in detail.

To riders of ANY make of V or FLAT belt drive motorcycle, we would like to send our 24-page "K & R" CONVERSION SET catalog, explaining how, at slight expense, you can bring your machine strictly UP-TO-DATE by attaching our CONVERSION SET, giving you TWO-SPEED, FREE ENGINE, FRICTION CLUTCH, BAND BRAKE, HAND STARTING—all in the HUB and operated entirely by foot levers, leaving hands free for use on the bars. Read what a few riders have to say who have attached "K & R" CONVERSION SETS to their machines.

WARWICK, N. Y., Oct. 24, 1909.

Gentlemen: I want to tell you right now that my "K & R" Two-Speed is all right and if I couldn't get another like it, I wouldn't take a cold $100 for it. Have tried it on a mountain road with 18 per cent. grade and it never failed in the least. It proved its worth a few weeks ago. When I started out in the morning, the roads were frozen; and when I started home on a 60-mile trip, I found the mud three and four inches deep, but I never walked a step. The last five miles was in the dark and without a lamp, and I never saw a piece of machinery work so nice and come in so handy. (Twin Cylinder Curtiss.)

CLARENCE AYRES, SUPT.,
Warwick Valley Telephone Co.

ANAMOOSE, N. DAK., March 29, 1910.

Dear Sirs: Received the Set before I expected and find it fine. I rode 25 miles after a rain and against a strong head wind, which I could not have done without the Low Gear. Wishing you, etc. (1909 Erie.) G. P. MILDE.

DESERT LABORATORY, TUCSON, ARIZ., March 21, 1910.

Gentlemen: I am greatly taken with your Conversion Set. To my mind it makes motorcycling worth while, and after using a Two-Speed machine, I would not return to the usual type. I will write you later from abroad. Your promptness in shipping the extra parts is much appreciated as I ship my machine to London on the 26th. (1910 Harley-Davidson.)

W. A. CANNON.

HAMILTON, OHIO, April 19th, 1910.

Gentlemen: Just thought that I would report about the "K & R" HUB which I have in daily use. As you know, I am an enthusiast on Two-Speed Gears. Have used the —. —. —. for two years, but the operation of your gear is much more comfortable and there is no question but that the operation by foot is the right way—at least I find it better than changing by hand. I am satisfied that the "K & R" will do its work in its place, same as the Bosch Magneto does in its place. (1910 Excelsior.)

H. E. PILGRIM.

SAN ANTONIO, TEX., Feb. 21, 1910.

Gentlemen: The "K & R" Hub is O. K. I can now ride my machine every day in the year and over rough, sandy roads where it is impossible to ride without the Two-Speed. (Twin M-M with Side Car.) U. S. OGLESBY.

We here illustrate ONE of the advantages of the "K & R" Two-Speed Device, used in connection with a side-car.

The machine is a 1910 Merkel Twin, used for passenger and delivery purposes by the BIRD CYCLE CO., 67 W. 7th St., St. Paul, Minn., and shows Mr. Bird's 16-year-old son in the act of starting motor by cranking through the gears.

Seat your passenger, crank your motor, press the low-gear foot lever and glide away exactly as with an auto.

Mr. Bird says, "Have tried and abandoned other makes of two-speed, but you COULDN'T BUY my "K & R" if I couldn't get another."

You can traverse slippery or congested streets with absolute safety—stop and restart at will on level or up grade without dismounting or pedaling—throw from low to high gear instantly, going at any speed, or vice versa. Gears always in mesh and will not strip.

Look for the Motorcycle with the RED BAND; it has been fitted with a

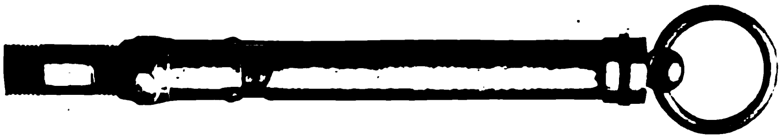
"K-R" CONVERSION SET

KELLER & RISQUE MOTOR CO.
BRIDGE SQUARE ST. PAUL, MINN.

"It's all in THE HUB with the RED BAND"

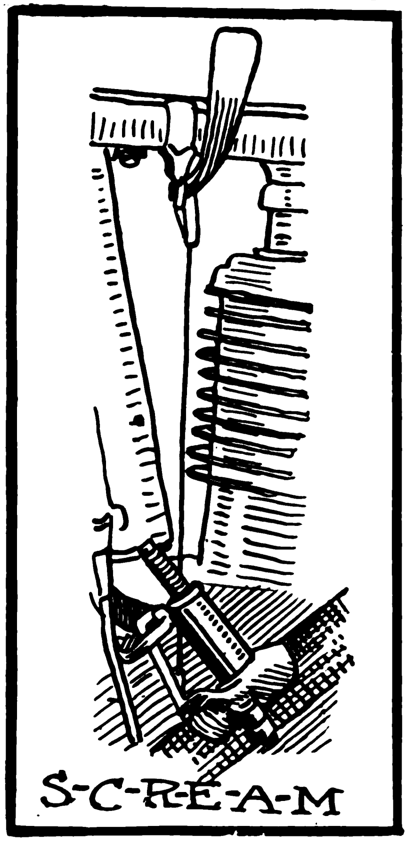
WHISTLES LIKE A BIRD.

NIGHTINGALE motorcycle whistles are a new product of the Nightingale Whistle Manufacturing Company, of 1777 Broadway, New York City. The Midget Nightingale whistle retains all the attractive features of the original, as used on the four-wheelers, but it is, of course, smaller in size and weight. It is blown by the exhaust and if attached as directed will not clog, as it cleans itself from road dirt automatically after every operation. It causes no back pressure, has no parts to wear and is always ready for use. Its sound is very attractive and penetrating and it will work satisfactorily at slow speed. The whistle is easily attached. It sells for $4.00 and can be had in nickel for $1.00 extra. When ordering, it is simply necessary to state the diameter of the exhaust pipe.



EXHAUST WHISTLE WHICH "SCREAMS."

AN exhaust whistle which is easy to attach, easy to operate and can be heard several blocks away is produced by the Scream Sales Company, M. M. Building, Dallas, Texas. This device is operated by a lever within handy reach of the rider. It is durably made and attractively finished and does its work in a thorough-going manner.



* *

AMONG the horn manufacturers few are better known than the Riley-Klotz Manufacturing Company, 17-19 Mulberry street, Newark, N. J. This concern supplies several types of horns, bulbs, reeds, brackets and screens.

* *

THE Sireno Company, of New York, manufactures a very clever horn, which is operated, as illustrated herewith, by being brought into contact with the front tire. Controlled from the handlebar with a ratchet lever, it is finished in nickel.

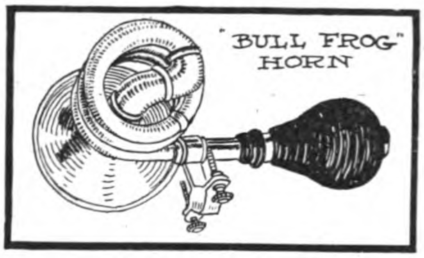
* *

A MOTOR attachment to be fitted to bicycles is produced by the Colorado Motor and Machine Company, 1757 Lawrence street, Denver, Col. It is built to fit any ordinary bicycle, is light, requires only two dry cells, is constructed of good material and can be attached without any alteration. The price is $60.00, including everything required to give motor power to an ordinary bicycle. This company is also agents in that locality for the Auburn spark plugs and Cartridge coils.

* *

FOR GARAGE ROOFS.

FOR the benefit of those who have constructed or intend to build garages for their machines, attention is called by the H. W. John-Manville Company, of New York (said to be the largest miners of asbestos and manufacturers of asbestos goods in the world) to the fact that they have something worth looking into in their J-M asbestos roofing and J-M asbestos side, which are made of asbestos and Trinidad Lake asphalt. This material, which by reason of the substances used and the method of manufacture has an actual covering of asbestos stone and is of an all-mineral nature, not only offers to a building absolute protection against water, wind and every other phenomena of the elements, but it is also guaranteed not to rot, rust, melt, run or crack, and it requires no painting to preserve it.

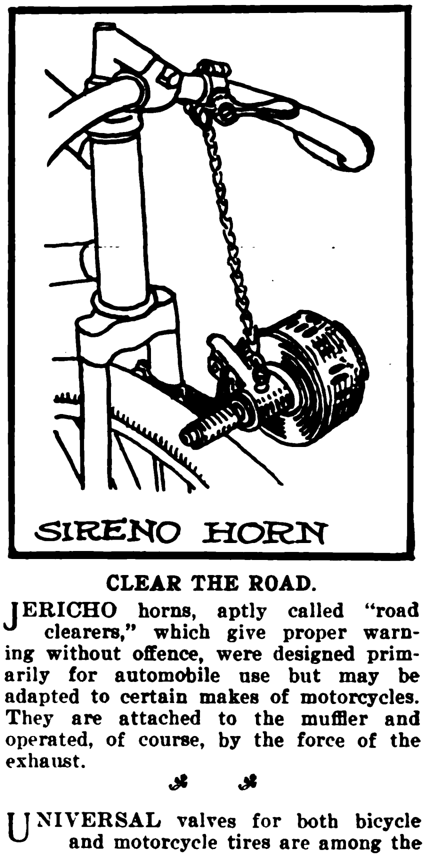


* *

STANDARD forged parts and tools are manufactured by the Billings-Spencer Company, of Hartford, Conn. Among these may be particularly mentioned the B. & S. wrench, pliers, drop forged hammer, combination knife and screw driver, tool punch and cold chisel.

EXHAUST WHISTLE AND CUT-OUT.

BRAZENOR & RUDERMAN, 1041 Bedford avenue, Brooklyn, agents for the Excelsior Autocycle, expert repairers with a full line of parts, are making a specialty of an exhaust whistle and cut-out combined, which they declare to be the "real noise." This device was recently described in the columns of this paper. It is well made along clever lines, and, selling at $5.00, is well worth the price to anyone wanting an exhaust whistle.

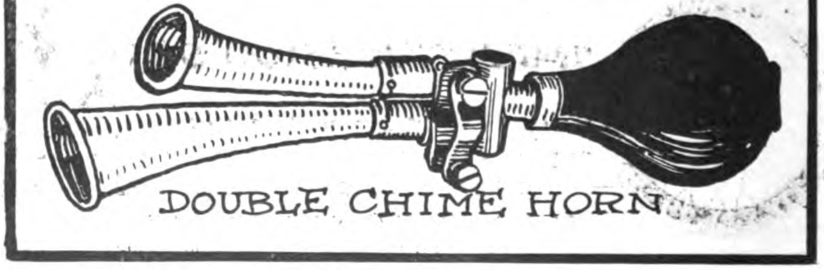


CLEAR THE ROAD.

JERICHO horns, aptly called "road clearers," which give proper warning without offence, were designed primarily for automobile use but may be adapted to certain makes of motorcycles. They are attached to the muffler and operated, of course, by the force of the exhaust.

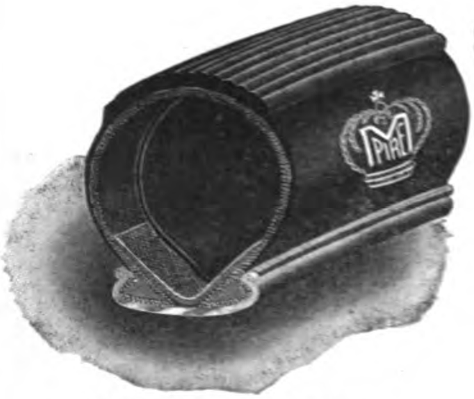
* *

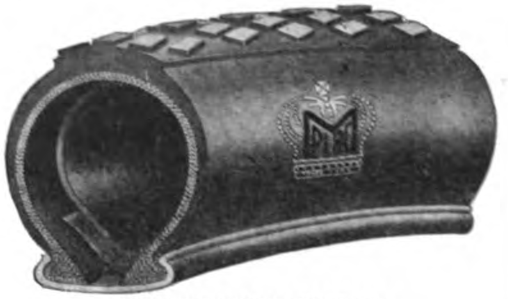
UNIVERSAL valves for both bicycle and motorcycle tires are among the products of A. Schrader's Sons, New York City.

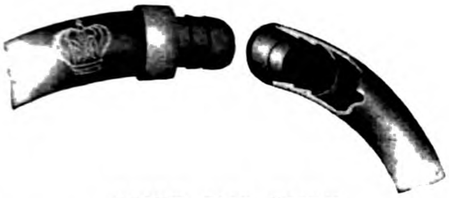


Empire Tires
WEAR LONGEST

TRADE MARK


CORRUGATED TREAD.


CHECKERED TREAD.


BUTT END TUBE,
Allows of repair without removing wheel.

Heaviest Motorcycle Tire Made

Consequently More Good Goods

EMPIRE TIRE COMPANY

Factory---TRENTON, N. J., U. S. A.
Branches and Agencies throughout United States and Canada

MOTORCYCLE MART

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word; two or more times, three cents per word each insertion. No advertisement for less than fifty cents.

TO further prove that advertisements in the mart produce prompt returns, we quote from a letter just received from A. E. Beyer, 222 State street, Kendallville, Ind., as follows: "I have written to several of the persons who advertised motorcycles for sale in your mart columns, but I have thus far failed to obtain a machine. I suppose it is because of the fact that by the time my letter reaches the advertiser his machine has been sold."

Only those who are prompt in responding to mart advertisements obtain the bargains which are advertised in each and every issue. There is no reason in the world why any rider should keep on his hands a machine for which he has no further use or which for any other reason he wants to sell.

FOR SALE OR EXCHANGE

FOR SALE—Motorcycle supplies, guns, cameras, etc., at twenty-five per cent. discount until May 30. Walter Harrington, Carthage, Mo.

FOR SALE—1909 2¼ h. p. Wagner motorcycle, used 800 miles; perfect condition. M. Loftsgard, Elgin, Iowa.

REWARD $25—Stolen April 26, 1910, loop frame twin Indian; blue; No. 20A386. Clarence J. Beardslee, 30 Prospect street, Bridgeport, Conn.

FOR SALE—N. S. U. 3½ h. p. late 1909 model; very speedy; O. K. condition; $140 cash, or will exchange with cash for 1910 Excelsior. William Stiep, 137 Railroad avenue, Jersey City, N. J.

FOR SALE—1910 Reading-Standard 4 h. p. A-1 condition; bargain. Box 263, Allentown, Pa.

FOR SALE—Harley-Davidson motorcycle, almost new and guaranteed as good. Has never failed to run or cost a cent for repairs. Reason for selling—have bought automobile; in absolutely as perfect condition as when it left factory. Price, $160. Write for particulars. Dr. Howard H. Hopkins, Monrovia, Frederick Co., Maryland.

WANT TO SACRIFICE 1910 Emblem twin 7 h. p. with magneto and idler. Never been turned over. No reasonable offer refused. G. Feltman, Albany, N. Y.

FOR SALE—1909 Indian twin; 5 h. p.; nearly brand new; $195. No exchange; must sell; write for further description and photo. W. A. Dunn, Chester, W. Va., P. O. Box 7.

FOR SALE—'08 M. M. 4 h. p.; just overhauled by manufacturers; new spring fork and automatic stand; also new rear wheel and tire; awful sacrifice at $90. C. B. Drew, Sadsburyville, Pa.

FOR SALE—$125 takes new M. M. Magneto Special and complete outfit. Shiffer, North Woodstock, N. H.

WILL SACRIFICE my 1910 Twin Thor $45 less than cost. Will arrive May 1. G. H. W., Room 18, McCurdy Block, Canton, Ohio.

WRITE for description, photo and price of an Indian Twin, almost brand new in every respect. A snap for quick sale. "Snap," care of MOTORCYCLE ILLUSTRATED.

WANTED—B. & C. two-speed gear for 1910 twin; must be in good condition. T. M. Caldwell, Amarillo, Tex.

GREAT MOTORCYCLE BARGAIN—1909 Indian belt drive, 5 h. p. twin, magneto, horn, speedometer, extra inner tube, stand and tools, used as agent's demonstrator; always kept in perfect condition; run only one thousand miles; value when new, with extras, $300. For price, write to H. J. Allington, Saginaw, Mich.

FOR SALE.—Five horse twin Indian, diamond frame, with magneto fan for cooling cylinder; extra auxiliary gasoline tank and tandem attachment, all in good shape. Cost $325; will sell for $140. W. E. Shulenberger, Salisbury, N. C.

FOR SALE.—Seven h. p. chain-driven '09 model Indian motorcycle. Tires and nickel plate in fine condition; equipped with B. & C. two-speed clutch. Guaranteed in good running order. A bargain at $210.00. Geo. H. Mills, Shreveport, La., care Ardis & Co.

WANTED AT ONCE

Motorcycle Assemblers and Testers. Good Salaries Paid to the Right Men. Address

READING STANDARD CO., READING, PA.

FOR SALE—R.-S., 6 h. p. twin, in first-class condition. J. Grossman, J., 328 South Tenth street, Reading, Pa.

FOR SALE—1909 model, M. M. battey special motorcycle, 3½ h. p.; flat belt drive, 2½-inch tires in good condition; little used and good as new. Cost $200, will sell for $100. Address E. C. Flegle, Arlington, Ky.

FOR SALE—F. N. four-cylinder motorcycle; 1908 model; been ridden but little over 1,000 miles; in good condition; cost $350; will sell for $185; a bargain. Address "Bargain," care MOTORCYCLE ILLUSTRATED.

AGENTS CARDS, ETC.

ARE you wanting an English motorcycle? You know they want a lot of whacking. We shall be pleased to quote you for a machine delivered duty free upon request. Maudes Motor Mart, 136 Great Portland street, London W, also at Powell street, Halifax, England.

F. N. OWNERS ATTENTION!—We have for sale a considerable quantity of F. N. parts. If interested, write for particulars. Tiger Cycle Works Co., 782 Eighth avenue, New York.

WANTED—Second-hand motor cycles, Indians, Marsh Metz, Merkel-Light and Excelsior. E. J. Willis Co., 8 Park place, New York.

MOTORCYCLES thoroughly overhauled and repaired; agents for Thor and Excelsior motorcycles; supplies and sundries. Brazenor & Ruderman, 1041 Bedford avenue, Brooklyn, N. Y.

SECOND-HAND M. M. BARGAINS—Exhaust Whistles, Hand Idlers. M. M. Branch, 895 Main street, Buffalo, N. Y.

SECOND HAND BARGAINS.—Any make of motorcycle; all machines in good condition. Parris, 2208 N. Broad street, Philadelphia, Pa.

IF IT IS a second-hand machine you want, write to A. D. Cook, 111 Monroe avenue, Rochester, N. Y.; Curtiss Agency.

BARGAINS in accessories. Always on top. We have the largest stock and lowest prices in America. Write today for catalogue. Motorcycle Equipment Co., Hammondsport, N. Y.

WANTED. A Man to Take Full Charge of Motorcycle Manufacturers' Office.

State age, salary, references, experience. Address "Office," care of MOTORCYCLE ILLUSTRATED, 299 Broadway, N. Y.

THE UTMOST IN COMFORT AND SERVICE

added to smartness and perfect fit, make GRINNELL GLOVES ideal for motorcyclists. They are soft and flexible as to permit the making of delicate repairs and adjustments, and are washable.

GRINNELL "RIST-FIT" VENTILATED GLOVES

are held snug and smooth at the wrist by the "Rist-Fit," a "V" of soft leather set in the cuff. The Ventilated Back admits the cooling breezes. Write us your dealer's name, if he doesn't handle GRINNELL GLOVES, and we will send a pair on approval.

MORRISON-RICKER MFG. CO., 27 Broad St., Grinnell, Ia.

Originators and Patentees of "Rist-Fit" and Ventilated Gloves

MORGAN AND WRIGHT TIRES

Set 'Em Up Again

Every world's motorcycle record from 17 to 50 miles was smashed on the Playa del Ray, Los Angeles, board track, April 10, by F. E. Whittler on Morgan & Wright Tires.

Time—50 miles—40 minutes 13 seconds.

Every world's record from 1—100 miles was shattered by Jake De Rosier on the same track May 8 on Morgan & Wright Tires.

Time—100 miles—86 minutes 14 seconds.

Both these riders use Morgan & Wright Tires from choice; not from "persuasion" or "influence."

They will give the same reliable service on your machine. Morgan & Wright make no special tires.

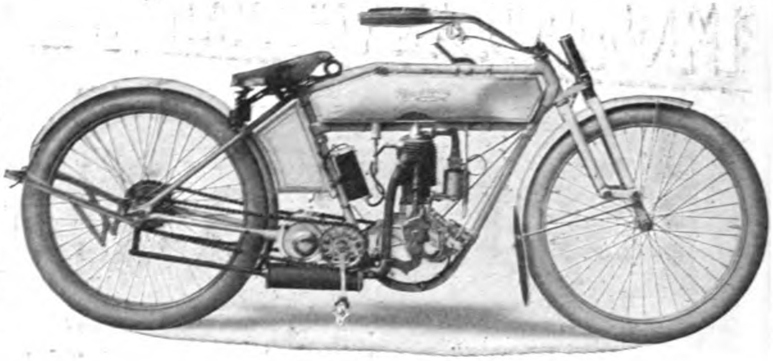
MORGAN & WRIGHT
DETROIT

ARE GOOD TIRES!

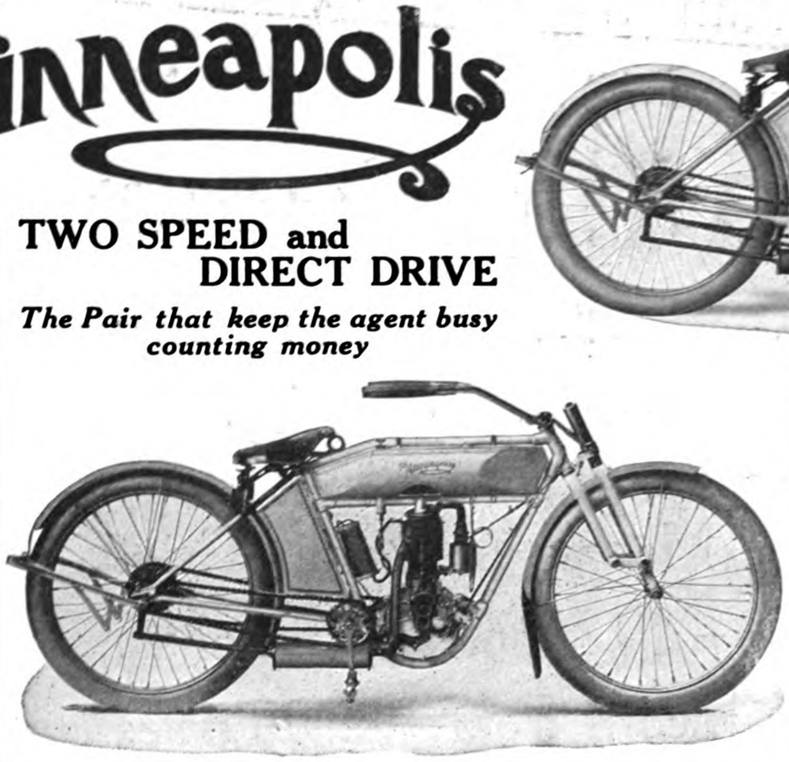
Minneapolis

TWO SPEED and DIRECT DRIVE

The Pair that keep the agent busy counting money



Model "K" Two-Speed.



Model "L" Direct Drive.

The TWO-SPEED with a reputation with the GOOD OLD CRANKS and PEDALS. Easy starting, and assures safety to the rider.

A Perfect Friction Clutch on the Motor with the Release Lever on the Handle Bar.

THOR 4 MOTOR Used on Both Models

Write for Catalog

Minneapolis Motorcycle Co.

517 S. 7th Street Minneapolis, Minn.

Good Light Costs Less Than Accidents

Unless you can see the ruts, bumps, holes and obstacles along your path at night, you are exposing your machine, yourself, and possibly a fair passenger, to constant risk of serious accident.

PREST-O-LITE Gas Tank

Shows up every detail of the road, and floods it far ahead with strong, unwavering light, which you turn on or off like a gas jet. Makes night riding a pleasure, and makes it safe.

The Prest-O-Lite Motorcycle tank is a foot long, 4 inches in diameter, and weighs only 7 pounds. Conveniently attached and carried. Gives over 80 hours of steady, dependable light (using a 1/8 ft. burner). Full tank (in exchange for empty) 60 cents, at any of our 5,000 exchange stations.

NOT AT ALL EXPENSIVE

Your original Prest-O-Lite tank is $10, but you should remember that you are not saying good-bye to that $10. Prest-O-Lite tanks are always in demand, never get to be second-hand, and your Prest-O-Lite is always a saleable article.

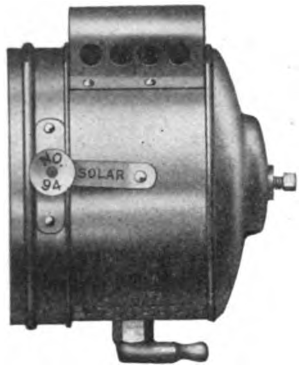
See your dealer about this, or write us.

The Prest-O-Lite Co., **246 East South St., Indianapolis, Ind.**

Branches at New York, Boston, Philadelphia, Cleveland, Chicago, Detroit, Providence, Minneapolis, Omaha, Dallas, Los Angeles and San Francisco.

THE BEST ACCIDENT INSURANCE FOR MOTORCYCLIST AND BICYCLIST

The new Solar Motorcycle lamp and generator. The crowning product of twelve years of successful experience.

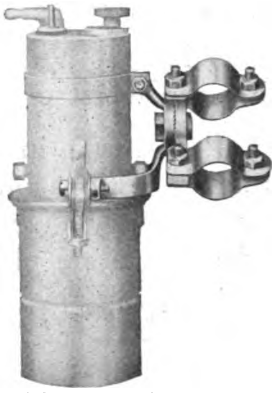


Model 94 Solar Motorcycle Lamp.

Model 94R; with Red Rear Signal.

The lamp is heavy brass, reinforced and riveted in assembling. Fitted with a removable 4-inch B & L Solar lens mirror reflector—the most powerful 4-inch mirror made.

Its great popularity is attested by its almost universal use.



Solar Motorcycle Generator.

The generator is made of a seamless shell of heavy drawn brass. Has a greater carbide capacity than any generator on the market.

You can ride at night with safety and confidence, if you're using Solars.

BADGER BRASS MFG. CO. **Kenosha, Wis. New York City**

(46)

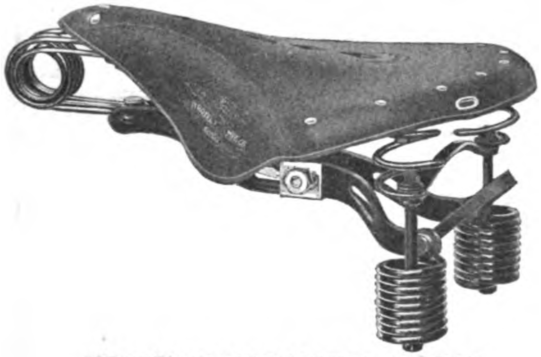
THE ONLY REAL QUALITY MOTORCYCLE SADDLES

EVER MANUFACTURED

TRY THEM AND BE CONVINCED

▌ YOUR LONG TRIPS ON THE MOTORCYCLE WILL BE PLEASURE TRIPS IF YOU RIDE

TROXEL MOTOR SADDLES



TROXEL EAGLE MOTOR SADDLE
Length, 13¼ inches Width, 12 inches

Troxel New Wood Base Motor Saddle
Length, 14½ inches Width, 12½ inches

These Saddles are the Finest and Best money can produce. Why not have them ?

MANUFACTURED BY THE OLD HOUSE OF REPUTATION

THE TROXEL MFG. CO., .. Elyria, Ohio, U. S. A.

"BOYS"

Insist that your leggings are equipped with the "**BROGA FASTENER**" and your legging trouble will be over. Easy to put on, quick to take off, yet a sure lock and very classy.

Take it from one who has bumped the bumps on a motorcycle for five years.

The "Broga Automatic Fastener"

is a Godsend to legging wearers and if you accept any other you are getting the worst of it.

The "**BROGA**" is made in Syracuse and sold everywhere. All inquiries and questions promptly answered. We will be glad to hear from the manager of every Motorcycle Club in the United States, and then you will be glad that we are glad.

BROGA AUTOMATIC FASTENER CO.
368 West Fayette Street :: SYRACUSE, N. Y.

A Voice From The Road

IT SOUNDS GOOD TO US. HOW ABOUT YOU?

Philadelphia, May 10, 1910.

Apex Belting Co.

I have used the Shoemaker Belt through the winter and spring for 12,500 MILES. It is the greatest belt I ever saw.

Yours truly,
W. G. CROWELL, 331-337 Walnut St.

There, in a nut-shell, is **another** story of long and satisfactory service from a **Shoemaker Belt.** We are beginning to hear such stories from riders now, because these belts have been in use just long enough to be thoroughly tested by actual hard, grinding road work. There is no **theory** about **12,500 miles of service,** and it shows conclusively that the only belts for all-round hard, dependable service are the Shoemaker (Standard "V" Shape or Flat) Motorcycle Belts.

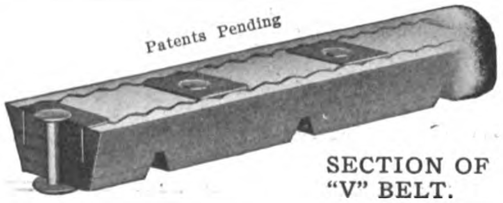
SHOEMAKER (Standard "V" Shape or Flat) MOTORCYCLE BELTS

THESE BELTS

Do not slip, wet or dry.

Are not affected by water, oil or climate.

Require no dressing of any kind.



SECTION OF "V" BELT.

SEND FOR THE BOOKLET

That explains in detail all about the special leather used in these belts and how they are braced for strength. Also price list. Free on request.

The Apex Belting Co., 240 Chestnut St., Philadelphia

The Motorcyclist's Tire Insurance

Here is a compact Emergency Repair Outfit that you can carry under the seat of your machine.

With this outfit no distance from home can inspire fear of breakdown. The Goodyear Emergency Repair Outfit is to the motorcyclist what the extra tire is to the automobilist.

The following sundries are easily carried on a Motorcycle, fastened under the seat. They are out of the way and still accessible:

The Motorcycle Protection Patch

This arrangement when properly put on will run many miles—the outside boot protecting the tire and lacing over the rim. The inside patch fitting snugly inside the casing to prevent further damage to the tube. The outside patch sells at $1.20 and the inside at 45 cents.

The Goodyear Motorcycle Rim Cut Patch

The best inside patch ever designed for repairing either blowouts or rim cuts. Note the fabric flap—it holds the patch firmly and makes the rim cut repair most effective. Price 65 cents each.

Goodyear Inner Tube Patches

These patches are made from finest Para Rubber in four sizes: No. 1, ½-in. round, 4c each; No. 2, 1¼-in. round, 5c each; No. 3, 2¼-in. round, 6c each; No. 4, 2⅝-in. round, 8c each.

Repair Outfits for the Motorcyclist

The practical repair outfit for you—packed in small tin box. It contains an assortment of Inner Tube Patches, valve parts, cement, etc. Price 60 cents each.

Goodyear Reinforced Blowout Patches

No cement necessary—the surface of frictioned fabric adheres firmly to the casing. Just the thing for inside repair of blowout or cut in casing. Price 30 cents.

The entire outfit can be neatly wrapped in the Protection Patch and fastened under the seat of the machine, where it is out of the way, yet instantly accessible. Send for interesting booklet on repair of Motorcycle Tires.

The Goodyear Tire & Rubber Co., Mott Street, Akron, Ohio

(71)

WE CAN SUPPLY ANY

MOTORCYCLE ACCESSORY

ADVERTISED

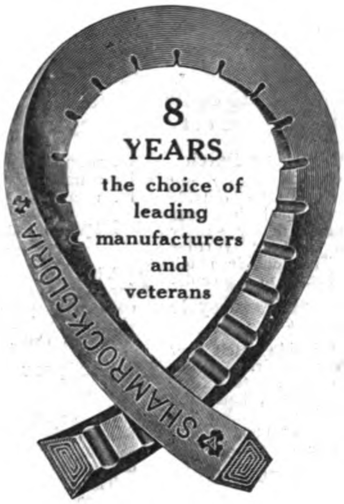
OUR PRICES ARE THE LOWEST, AND WE SHIP GOODS THE SAME DAY ORDER IS RECEIVED

Write To-Day for our Catalogue A2 and Save Money on Your Supplies

MOTORCYCLE EQUIPMENT COMPANY

HAMMONDSPORT, N. Y.

SHAMROCK GLORIA



THE
WORLD FAMED BELT

that requires absolutely no attention from one season to another. Its smooth, noiseless drive; positive, yet without jar or strain on the motor, has awakened the entire Motorcycle World who proclaim it

WITHOUT AN EQUAL

DISCARD
THE MESSY LEATHER

belts. The S. G., a rubber belt, requires no oil, dressing, or scraping. It does not wear the pulleys, it cannot slip and is always clean.

The S. G. Belts are molded separately and individually, consequently a perfect product is assured to each rider and in spite of these many advantages

IT COSTS LESS

Write for our special accessory folder

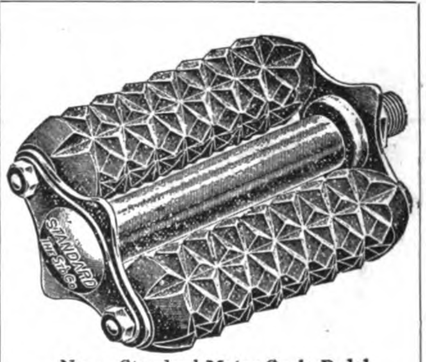
N. S. U. MOTOR CO., 206 West 76th St., New York City

HANOVER VULCANITE CO., 16th St. and Irving Place, New York City

STANDARD MOTORCYCLE PEDALS

Wide Tread Pedals combining *Comfort, Utility* and *Reliability.* Constructed of the *Best* materials by *Skilled Mechanics.*

PRICE, $3.00 PAIR



No. 3, Standard Motor Cycle Pedal

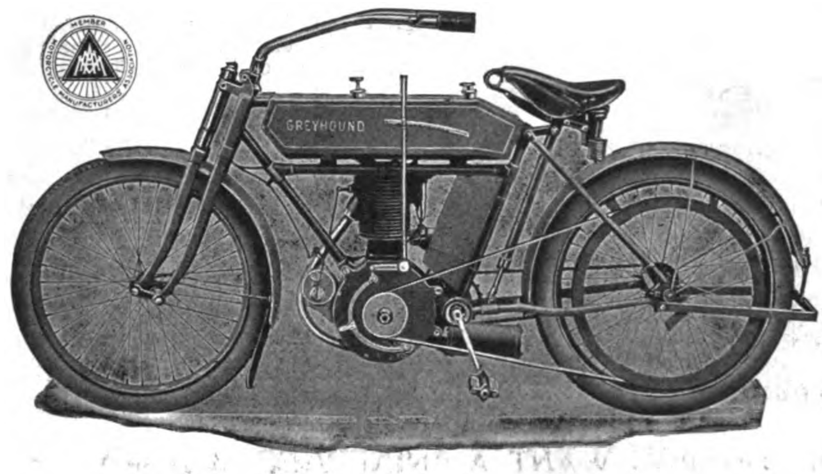
Emergency Axles, Sager Motorcycle Toe Clip, Diamond E <E> Spokes. Bridgeport and Standard Pedals. Sager and Standard Toe Clips.

Send for our Descriptive Circulars

THE STANDARD COMPANY

Torrington, Conn., U. S. A.

THE SPLENDID GREYHOUND

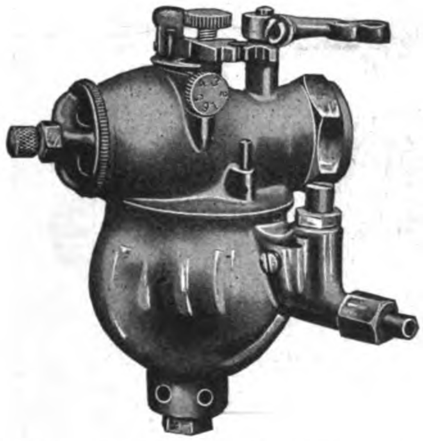


is jumping to the front, quite naturally. A motorcycle so excellent as this will not fail of appreciation and now that they are being shipped in quantity, they are breeding new business wherever they go. Design, material, workmanship—all fine. Comfort equipment, unequalled in all the wide world. Find out about them if you want the best motorcycle to sell or to ride. Catalog free.

GREYHOUND MOTOR WORKS

1459 Niagara St., Buffalo, N. Y.

SALES AGENTS: Metropolitan District—ABBOTT-DETROIT SALES CO., 1521 Bedford Ave., Brooklyn, N. Y. Illinois, Indiana and Wisconsin—WHIPPLE, "The Motorcycle Man," 923 Jackson Blvd., Chicago, Ill. California—GEORGE E. HENGERER, San Gabriel, Cal.

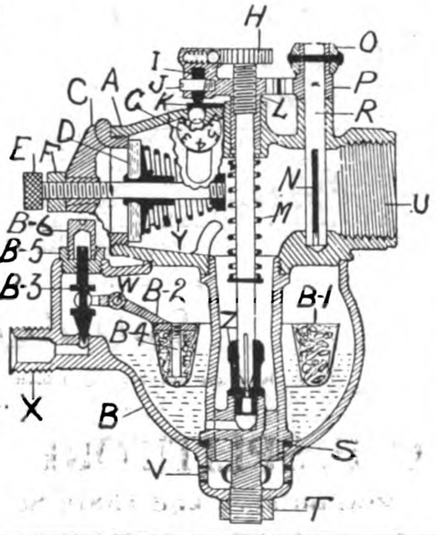


HEITGER 1910 MOTORCYCLE CARBURETER

MODEL "F"

We are making a specialty of this one size and model of Carbureter this season. It is adapted to use on any type of gasoline motor. The large quantity we are making of this one size enables us to quote very interesting prices to manufacturers, to whom we will be pleased to submit samples for testing.

There are two gasoline adjustments, an entirely separate and independent one for both low and full speeds, so the feed for maximum results, at both low and full speeds, can be obtained without making any sacrifices one for the other, or an average, as is common. All gasoline adjustments are indexed and bronze ball and spring ratchet retained. Throttle can be set to operate from any position, or the opening or closing motion can be reversed. Float chamber gasoline connection can be swiveled to any position for connecting feed pipe. Outlet is standard ¾-inch female pipe threads; air valve is of improved and strong construction. Made in plain brass or nickel finish. List, in nickel, $10.00. Catalog on request.

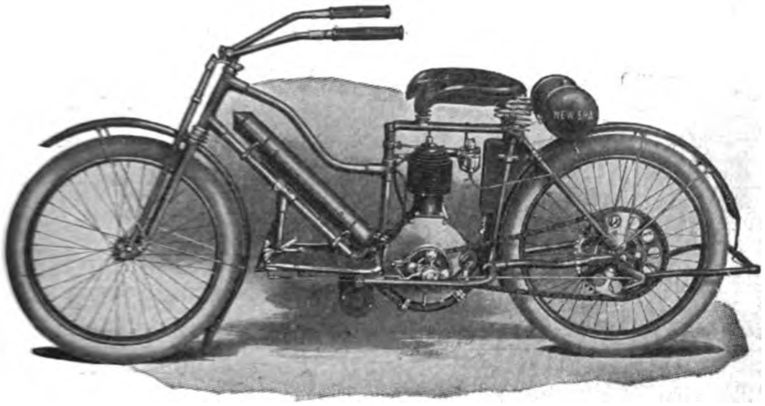


HEITGER CARBURETER CO., 208 West South St. INDIANAPOLIS, IND.

Kindly always mention the paper when writing to advertisers.

NEW ERA AUTO-CYCLE

IT'S THE HAPPIEST COMBINATION OF COMFORT-SAFETY-SPEED-DURABILITY AND FUEL ECONOMY



Patent Pending.

DON'T mistake it for an ordinary motor-cycle—it's extraordinary: The only two-wheel Automobile on the market—the only motor-cycle without pedals, without the old-fashioned saddle, without vibration, without work. WHY? HOW? It's motor—an air-cooled 3½ and 5 H. P. single cylinder—is started by means of a crank, like an Auto—in a few seconds, without pedaling.

NO SADDLE SORENESS EITHER

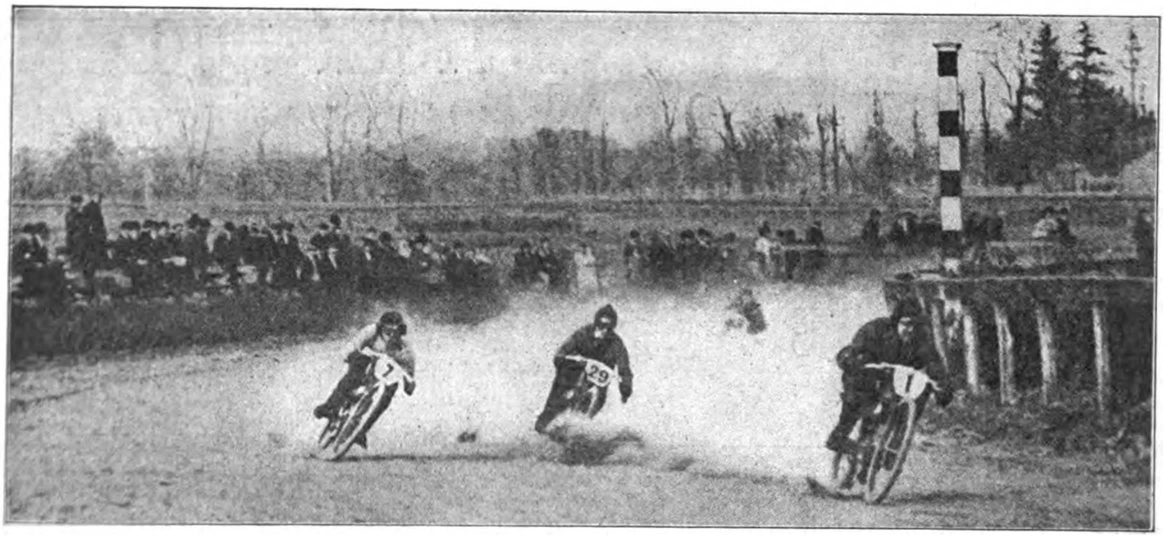
For the form seat—leather upholstered, and the position of it, between the wheels—prevents it. The foot-board helps lots. No hill too high, no street too crowded for the New Era with its two-speed transmission, which makes the rider the master over every emergency. Our catalogue tells the rest. Shall we send it?

THE QUESTION REMAINS: DO YOU WANT A "NEW ERA" AGENCY?

Write us today

THE NEW ERA AUTO-CYCLE CO.

No. 22 Dale Avenue **DAYTON, O.**



The winners are always equipped with the standard

Splitdorf Motorcycle Plugs

So good they are widely imitated. For your own protection see that the SPLITDORF trade-mark is stamped on the Plug. This guarantees SPLITDORF quality

C. F. SPLITDORF
Walton Ave. and 138th St.

New York
Branch, 1679 Broadway

SPLITDORF NEW YORK

Motorcycle Cases at Half Price

If you compare these prices with the factory quotation and examine the quality, you will say they are a bargain. There are 4,000 in this lot, the largest purchase ever made of Motorcycle Cases. We cleaned out the stock of the M. & W. factory when they changed the style of lettering on their moulds for 1910. While not guaranteed, every one is practically perfect.

SINGLE CLINCH—MOULDED TYPE				DOUBLE CLINCH—MOULDED TYPE			
Priced Each Size	Regular Weight Basket Weave	"Tourist" Heavy Basket Weave	"Bailey" Tread	Priced Each Size	Corrugated or Basket Weave	"Tourist" Heavy Basket Weave	"Bailey" Tread
26x2¼	$5.00	$5.50	$5.50	26x2¼	$5.25	$5.75	$5.75
26x2½	5.25	5.75	....	26x2½	5.50	6.00	6.00
28x2	5.00	5.50	....	28x2	5.25	5.75	....
28x2¼	5.25	5.75	5.75	28x2¼	5.50	6.00	6.00
28x2½	5.50	6.00	6.00	28x2½	5.75	6.25	6.25

LET US SEND SAMPLES WITHOUT OBLIGATION

If you order samples you are free to examine them thoroughly upon receipt and return them at our expense if they do not come up to your expectations. They are the best value we ever saw.

The above are offered subject to prior sale and an early purchase is suggested. Please be very careful to specify "Second" and state whether you want "Single" or "Double" Clinch and give first and second choice of style of tread.

1910 CATALOGUE IS READY

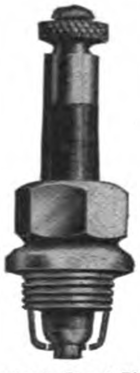
Send for catalogue No. 45 (Motorcycle and Bicycle Goods) and No. 44 (Automobile Accessories) and do business with a house with a record of 14 years of square dealing. Dealers will please enclose their cards.

NEW YORK SPORTING GOODS CO., 15 and 17 Warren St., NEW YORK

1910 PITTSFIELD 1910

SPARK COILS, SPARK PLUGS, SWITCHES, TIMERS AND DISTRIBUTERS AND MAGNETOS

MADE IN AMERICA *HAVE NO SUPERIOR IN THE MARKET*



Magneto Spark Plug

The following testimonial was recently received by the Pittsfield Spark Coil Co., unsolicited.

"Columbus, Ohio, Oct. 11th, 1909.

"PITTSFIELD SPARK COIL CO.,
"Dalton, Mass.

"Gentlemen:—

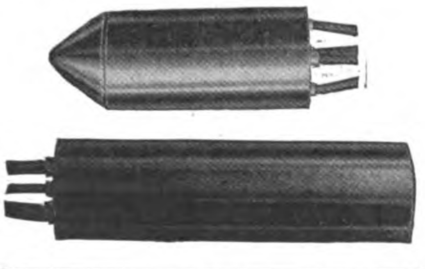
"I think you will be interested to know I am using the best coil "PITTSFIELD," on my run from San Francisco to New Orleans and New York.

"I have covered 5,763 miles, 2,022 on railroad cross ties, and have had a terrible trip. Have been out thirty-seven days and had no ignition trouble. Your coil has stood unreasonable endurance, exposed to water, heat and cold in many States.

"I am an old-time rider and one who knows a good thing.

"Yours truly.
(Signed) "H. F. MERIWEATHER."

A Line of Pittsfield Goods is carried by H. V. Greenwood, 166 Lake Street, Chicago



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¶ Made in gun metal, brass or nickel finish

AN OIL LAMP THAT MAKES MORE LIGHT THAN MOST GAS LAMPS

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PREVENTS ACCIDENTS
FOR MOTOR CYCLES
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Lamp Weighs Only 12½ Ounces

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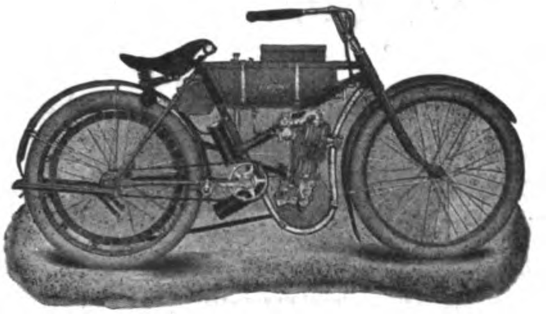

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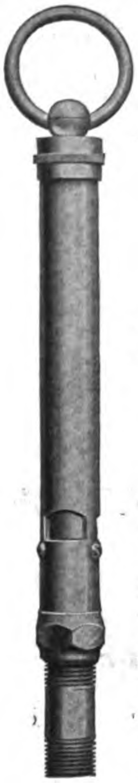

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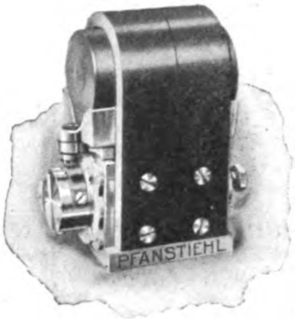

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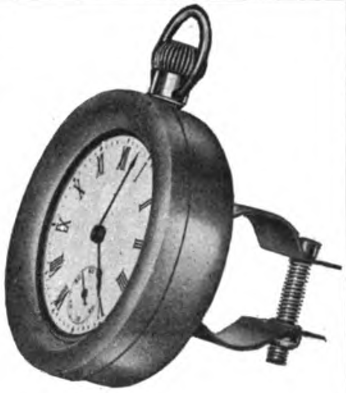

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WATCH
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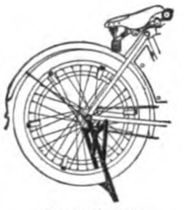

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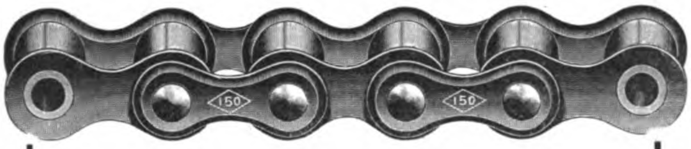

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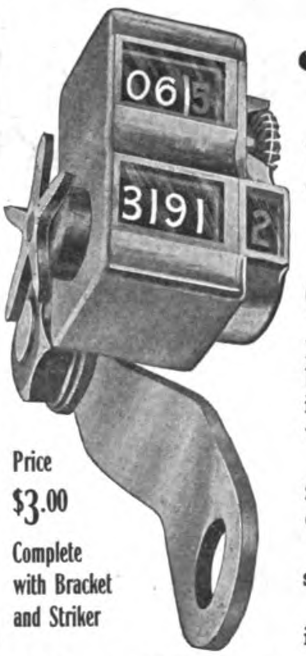

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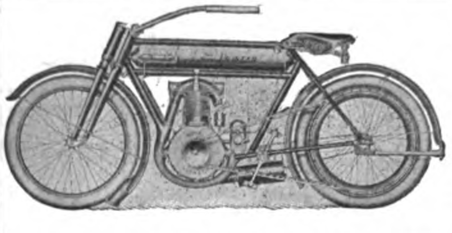

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Mr. Hanna states that he did not once make use of wrench, screw driver or any other tool throughout the entire trip.

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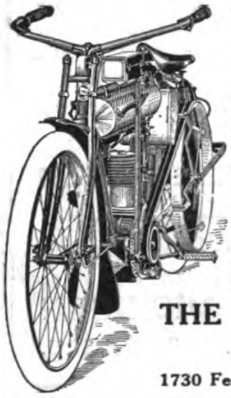

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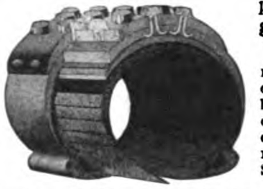

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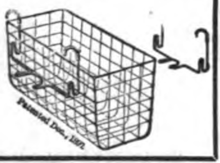

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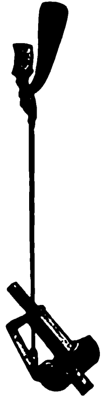

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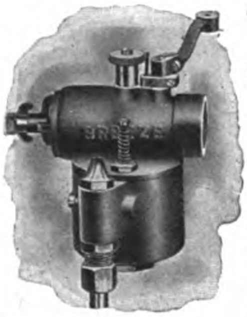

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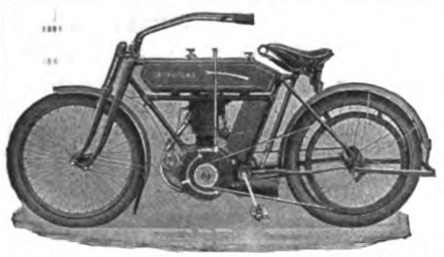

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would not now be supplying almost all the motorcycle manufacturers with rims if it were not for the fact that they have conclusively proven to be entirely satisfactory.

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HUGS THE
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PATENTED IN AMERICA AND ENGLAND

We are Sole American Agents for the genuine Watawata Belting.

A MINISTER'S EXPERIENCE.

The Rev. B. H. Davies writes:

"The ⅞-inch belt on my 3 h. p. has done well over 7,000 miles this season, including 1,279 miles in the six days' record. Their immunity from trouble has made me an enthusiastic supporter of your belts."

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CUT DOWN YOUR EXPENSE AND INCREASE YOUR SPEED AND POWER BY FITTING THE GENUINE WATAWATA. It means more fun and less work; money in your pocket at the end of the season and victories and prizes in contests.

Specify the Majestic Watawata on your Motorcycle.

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Waterproof Luggage Carrier

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PRICE, - - $2.75

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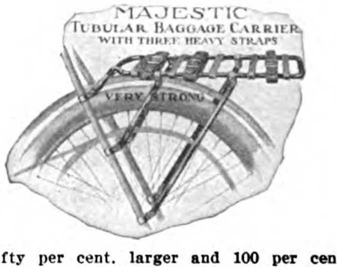

Fifty per cent. larger and 100 per cent. stronger for 1910. Four supports instead of two. Tubing increased in size. Heavier clips and bolts. Longer straps. Fits all 1909 and 1910 machines.

PRICE, $5.00.

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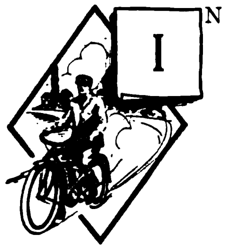
MOTORCYCLE
ILLUSTRATED
Vol. V. No. 11. June 1, 1910

PUBLISHED BY THE MOTORCYCLE PUBLISHING CO., 299 BROADWAY, NEW YORK CITY.

TWELVE PERFECT IN JERSEY ENDURANCE RUN

A Half Hundred Starters and Twenty-eight Medal Winners—Competition for Team Trophy and Individual Award Very Close



IN one of the severest tests of its kind, thirty-three of the fifty starters finished in the two days' endurance run under the auspices of the New Jersey Club Sunday and Decoration Day. Twenty-eight, by scoring 950 or more, qualified for medals. There were twelve perfect scorers.

The silver cup for the largest number of entrants was won by the New York Motorcycle Club, with eleven men. Several special prizes, for consistent running, club competitions, etc., have not been awarded as yet, owing to the fact that the committee will require to go over the details of all the scores, checking sheets and other data before the winners can be determined. While no official announcement has as yet been made, it is known that the plaque which is to be awarded in the manufacturers' team class lies between the Indian and Merkel teams.

A notable feature of the run was the fact that out of the twelve machines that finished with perfect scores, eight of them were driven by trade riders. Every machine to finish in this class was a twin-cylinder. Five of the gold medal winners were representatives of the New Jersey Club; the New York Club came second, with three, Harlem one, and the others rode unattached. Of those who qualified for silver medals, the honors were evenly divided between the New Jersey and the New York clubs. The Jersey club headed the list for bronze medals.

The medal winners, the points scored and their mounts are as follows:

Gold Medals, Perfect Score, 1,000 Points—George Fawcett, New Jersey M. C., 5 h. p. Vindec Special, with two-speed gear; P. W. Stevens, New Jersey M. C., 7 h. p. Stevens Special; Howard Hill, New Jersey M. C., 5 h. p. Indian; J. F. McLaughlin (trade rider), New York M. C., 6 h. p. Merkel; Edward Buffum (trade rider), New York M. C., 7 h. p. Merkel; Roy Pascall (trade rider), New Jersey M. C., 5 h. p. Indian; Earl S. Eckel (trade rider), unattached, Washington, N. J., 7 h. p. Indian; Harvey Snyder (trade rider), New Jersey M. C., 5 h. p. Indian; L. H. Guterman, Harlem M. C., 5 h. p. Indian; Harold Nickols (trade rider), West New Brighton, Staten Island, 6½ h. p. Yale; R. S. Gray (trade rider), New York M. C., 6 h. p. N. S. U.; W. R. Spear (trade rider), Paterson, N. J., 5 h. p. Indian.

Silver Medals, 980 Points—Al Bartsch (trade rider), New Jersey and New York M. C., 6 h. p. N. S. U.; H. B. Lyon (trade rider), New York M. C., 6 h. p. Merkel; George Riechey (trade rider), New Jersey M. C., 3½ h. p. Yale; B. J. Huerlander, New Jersey M. C., 3½ h. p. Excelsior; S. E. Sturges, Bridgeport, Conn., 4 h. p. Excelsior; Arthur C. Klages, Long Island and New York M. C., 3½ h. p. Excelsior.

Bronze Medals, 950 Points—Carl Bush (trade rider), New Jersey M. C., 6 h. p. Merkel; R. J. Black, New Jersey M. C., 5 h. p. Indian; George Frost (trade rider), New Jersey M. C., 6½ h. p. Yale; Charles J. Hendricksen (trade rider), Middletown, N. J., 4 h. p. Excelsior; P. M. Boschen, New Jersey M. C., 5 h. p. Indian; Lloyd B. Taylor, Middletown, N. J., 4 h. p. Excelsior; Stanley T. Kellogg (trade rider), New York M. C., 4 h. p. Excelsior; Andrew Krieger, New Jersey M. C., 4 h. p. Harley-Davidson.

Other riders who finished the run, but were unable to secure medals on account of penalties, were: Charles Ruck, New Brunswick, 7 h. p. Reading-Standard; Andrew Boschen, New Jersey M. C., 4 h. p. Merkel; Arthur Leslie, New York City, 5 h. p. Indian; Abbott A. Lane, Metropolitan Club, New York City, 7 h. p. M. M.; Charles J. Davis, Curtiss, M. C., Brooklyn, 6 h. p. Curtiss, and G. B. Hoover, Belleville, N. J., 5 h. p. Indian.

Mrs. G. B. Hoover, of Belleville, was the only woman rider in the run. She went over the entire course with her husband, and will be awarded a special gold medal by the club officials. She had one spill, which broke a pedal and shook her up considerably, but she pluckily finished the run.

An even half a hundred riders lined up Sunday morning for the start of the run. Squads of four men were sent away at intervals of one minute, until the entire fifty were hiking down the car tracks on Broad street, headed for Elizabeth. The men followed the short route until they reached Point Pleasant, where the turn was made across State through Lakewood and Trenton, and then north to Phillipsburg, where they put up over night. The start on the second leg of the 275-mile journey was made promptly at 6 o'clock the next morning, and the riders followed the roads over the hilly part of the State, crossing over into New York at Greenwood Lake, and then down the Ramapo Valley, then back into Jersey again at Suffern. They followed the Pompton turnpike to Cushmall Hill, where a hill climb was held.

Nearly twenty post entries were received, and the committee was kept busy filling out checking slips, assigning numbers and getting the extra men in line for the start. Five teams competed for the special manufacturers' class trophy. They were the Merkel, Reading Standard, Indian, Excelsior and N. S. U. riders.

A slight accident delayed P. M. Boschen at the start. He was hurrying down New street on his machine, and when at the corner of Halsey street his machine skidded on a wet spot on the asphalt and he went down. No damage other than a broken pedal resulted, and as soon as a new pedal was substituted he was sent away.

George Kirschoff, of the Harlem Club, got as far as the Lehigh Valley Railway crossing, on Frelinghuysen avenue, when he turned back on account of magneto and carbureter troubles. He reported at the clubhouse a few minutes later that he was officially out of the run, and hiked it over the Harrison turnpike for home.

Herman C. Page, president of the club, and Ray B. Whitehead, chairman of the arrangements committee, followed the riders in a Packard touring car. The referee was Thayer McLaren, a former secretary of the club, and the official checker for the final station at the clubhouse was George Post.

The day dawned clear and rosy, and the early morning air resounded with the crack of well-timed engines, with shouts and laughter as the riders renewed acquaintances of years before, and the jibes and well wishes of many friends and spectators, who had come out to see them off. Nearly all the riders from the surrounding clubs went to Newark Saturday night, so as to be on the ground early and still get a good night's sleep.

The route from the clubhouse was down Broad street to Elizabeth, N. J., then along the shore road through Rahway, Perth Amboy, South Amboy, Keyport, Red Bank, Long Branch, to Asbury Park, 51 miles from the start, where the riders had to make their first check. The remainder of the run was partly over country roads, with here and there an oasis of macadam.

After leaving Asbury Park the competitors went on to Point Pleasant, Lakewood and Farmingdale, where the roads were reported very sandy, then to Freehold, Hightstown, Windsor and Trenton, the State capitol, 65½ miles away from Asbury Park. After checking in the riders started on the last leg of the day's run over fairly good roads, though they had to keep busy to maintain the schedule.

From Trenton they went to Princeton, Somerville, White House, Clinton, Washington, and then into Phillipsburg, 68 miles from last check, and 184½ miles from the start. Here they stopped for supper and a night's rest.

Monday morning's run led through Belvidere, Buttsville, Danville, Hackettstown, Budds Lake, Dover, Berkeshire Valley, New Foundland and around Greenwood Lake where the riders crossed the State line into New York, going to Monroe, where they checked in, 107½ miles from the morning start. From all accounts this was the worst part of the run. But those who reached Monroe had splendid riding from there to the finish. From Monroe the riders turned almost parallel with the course they had been following for the previous 75 miles, going to Turners, Tuxedo Park, and Suffern, where they again crossed the line into New Jersey, then on to Oakland, Pompton and Singer, where Cushmall Hill is located. Each rider was required to stop and sign the checkers' sheets, but no time was taken.

In the single cylinder class the penalty for pedaling was 10 points, dismounting, 25. In the double cylinder class pedaling cost 25 and dismounting 50 points, and where two speed gears were used, double the above penalties were imposed. Of the thirty-three riders who reached the foot of the hill, nineteen went up in fine shape, without any loss of points, nine dismounted, and five succeeded in reaching the top by pedaling.

After leaving the top of the hill there were only Verona and Montclair to pass through before reaching the finish, thirteen miles from the hill, but that proved unlucky to several. C. Ruck (7 R.-S.) came under the 13 hoodoo; also Fred Voelker (6 N. S. U.), and Harry Mapp, (5 Indian). Mapp had not touched his tool box since the start (and, as a matter of fact, not since the commencement of the Taral Trophy run). But when coming into the city, with the finish almost in sight, the stand with which his machine was equipped became mixed up with the rear wheel, and ripped out practically all the spokes, smashing his perfect score all to pieces.

Geo. Riechey, of the New Jersey Club, had a very close shave, and it was not a razor that did it, either. Riechey, in turning a corner below one of the checking places, met an automobile head-on. Fortunately the accident did not result seriously, as Riechey had sufficient presence of mind to keep on rolling when he fell, or he would have been caught under the car. His machine was badly damaged.

H. J. Morris, of the Curtiss M. C., Brooklyn, on a 7 h. p. Curtiss, was thrown from his machine near Trenton, N. J. When picked up it was found that he had dislocated his knee and had sustained a few bruises and scratches. His machine, reduced to junk, was brought home on the train with him.

L. H. Guterman, of the Harlem M. C., had a close call. He fell in the road, and another rider ran over his rear wheel, just missing Guterman, who was able to proceed on his way after making the necessary roadside repairs.

The first man to come into sight at the finish was P. W. Stevens, on a 7 h. p. Stevens Special, closely followed by Geo. Fawcett (5 Vindec special), and Howard Hill (5 Indian), who could not have come in any closer without beating the schedule.

JOHNNIE MERTZ QUITE INVINCIBLE AT SHELBYVILLE RACE MEET

SHELBYVILLE, IND. Johnnie Mertz, of Indianapolis, was much in evidence at the Decoration Day races in this city. Out of a total of six events in which he entered his yellow Thor machine flashed across the tape a winner four times. Mertz's best time for the five miles over the half-mile track was 7:10. The fastest half mile of the meet was thirty-eight seconds, made by Mertz during the five mile event. The races were run over the fastest half-mile track in the State. The weather was perfect, the track in good condition, and the crowd enthusiastic. The most exciting event of the day was the amateur pursuit race, in which [illegible] Baker, on an Indian machine, finally overtook Mertz after [illegible] miles of hard riding. The summaries:

[illegible] cubic inches and under. Mertz first, Peters second, Hall third; time, 8:18. Five mile amateur handicap. —Mertz first, Stewart second, Baker third; time, 7:16 (Stewart had three-eighths of a mile handicap). Two mile stop race.—Mertz first, Kottlowski second, Baker third; time, 3:21. Amateur pursuit race.—Won by Baker. Five miles, racing machines only.—Mertz first, Baker second, Sink third; time, 6:38. Shelby County cup race.—Bolan Barnes first, Glen Myers second; time for two miles, 3:03. Ten miles, match race.—Baker first; Mertz second, Sink third; time 13:23. Consolation race.—Stewart first, Thompson second, Jones third; time for two miles, 2:20. The enthusiasm shown throughout demonstrated that motor racing has established its popularity among the sport-lovers of the Hoosier State. Other meets will no doubt be planned.

A Few of the Fast Ones In the Poughkeepsie Club.

A CLEAN-UP FOR HUYCK IN CHICAGO RACES

CHICAGO.—A new world's record for a circular dirt track, made yesterday by Huyck, on an Indian, during the two-day meet of the North Shore Motorcycle Club at Hawthorn, was the feature of an excellent program which aroused the enthusiasm of five thousand holiday spectators. Huyck's time for the ten miles was 9:16⅘, clipping one-fifth of a second from his own record, made at Detroit. Huyck won every event except one in which he was entered, the exception being the ten-mile handicap, in which his rear tire blew out, throwing him several feet against a fence. His machine was damaged, but he miraculously escaped injury The race was won by Turner, on a Merkel, with a half mile handicap. Turner made an excellent showing both days, running second to Huyck in several races. Jenkins and Hinkley, on Indians, captured the majority of the second places, while Crocker (Thor) won nearly all the thirds. Archie McCollum, on a Thor, won one of the five-mile events for private owners, Hoffman, on a Harley-Davidson, winning the same event the opening day. J. P. Mahoney won both days in exclusive races for Excelsiors.

The races awakened much public enthusiasm over motorcycle sports, and other meets will be demanded. Fred B. Hart, of the Excelsior Supply Company, officiated as referee to the satisfaction of all. The summaries:

Sunday, May 29.—Five mile handicap, singles and doubles up to 61-ins. displacement, limited to members of North Shore Motorcycle Club.—First, Wallace Davis, on Indian; second, L. Galitzi (Indian); third, A. H. Crocker, Jr. (Thor); time, 5:32⅖. Ten mile, free-for-all, 61-in. displacement.—First, Huyck (Indian); second, Turner (Merkel); third. Jenkins (Indian); time, 9:45. Five mile, 30.50 stock machines, private owners (limited to Clan Excelsior members).—First, J. P. Mahoney (Excelsior); second, William Staudt (Excelsior); third, Boninsky (Excelsior); time, 6:52. Five mile free-for-all, 30.50 class.—First, Huyck (Indian); second. Jenkins (Indian); third, Crocker (Thor); time, 5:36. Five mile, private owners, 3.50 class.—First, Hoffman (Harley-Davidson; second, Ware (Thor); third, Walsh (Harley-Davidson); time, 6:34. Five mile free-for-all, 61 class.—First, Huyck (Indian); second, Galitzki (Indian); third, Crocker, (Thor); time, 4:47⅘. Ten mile free-for-all, 30.50 class.—First, Huyck (Indian); second, Jenkins (Indian); third, Crocker (Thor); time, 12:16⅖. Twenty five mile free-for-all, 61 class.—First, Huyck (Indian); second, Turner (Merkel); third, Jenkins (Indian); time, 24:01⅖.

Decoration Day.—Five mile handicap, 30.50 cubic inches class, North Shore Motorcycle Club members.—First, Galitzki (Indian); second, Ware (Thor); third, Crocker (Thor); time, 6:09⅗. Ten mile free-for-all, 30.50 class.—First, Huyck (Indian); second, Galitzki (Indian); third, Jenkins (Indian); time, 11:55⅕. Five mile, for Excelsiors.—First, Mahoney; second, Lepper; third, Schuler; time, 6:39. Ten mile free-for-all.—First, Huyck (Indian); second, Hinkley (Indian); third, Jenkins (Indian); time, 9:16⅘ (a world's record for circular dirt track). Five mile free-for-all, Illinois State Championship.—First, Huyck (Indian); second, Hinkley (Indian); third, Crocker (Thor); time, 4:49⅘. Ten mile handicap, 61 class.—First, Turner (Merkel); second, Crocker (Thor); third, Beck (Harley-Davidson); time, 10:09⅘. Ten mile free-for-all, 61 class.—First, Huyck (Indian); second, Hinkley (Indian); third, Crocker (Thor); time. 9:50⅕. Five mile, 30.50 class, private owners.—First, McCollum (Thor); second, Ketchum (Harley-Davidson); third, Underhill (Harley-Davidson); time, 6:15⅖.

WE are requested to emphasize the fact that all mail intended for the secretary of the F. A. M. should be forwarded to Charles F. Ball, Y. M. C. A. Building, Indianapolis, and not to Le Roy Cook, of Boston, who has resigned the secretaryship, and in whose place President Willis has appointed Mr. Ball.

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THE Harley-Davidson Club, of Alliance (O.), was recently organized. Among the charter members are B. A. Cover, J. A. Buttermore, H. J. Lallemont, Ed. Fisher and A. J. Lewis.

POSTPONEMENTS, on account of rain, were necessary in both Poughkeepsie and Buffalo, where "big doings" in a racing way had been planned. The new date for the Poughkeepsie meet has not yet been decided upon, but the Buffalo races at the Fort Erie track will be held Saturday, with bright prospects for a fine meet.

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A MEETING of the Board of Governors of the Metropolitan Association of Motorcycle Clubs will be held on Thursday, June 2, at 8:30 p. m., at the headquarters of the Harlem Motorcycle Club, 61 West 124th street.

CAUSE AND CURE OF LEAKY FLOATS

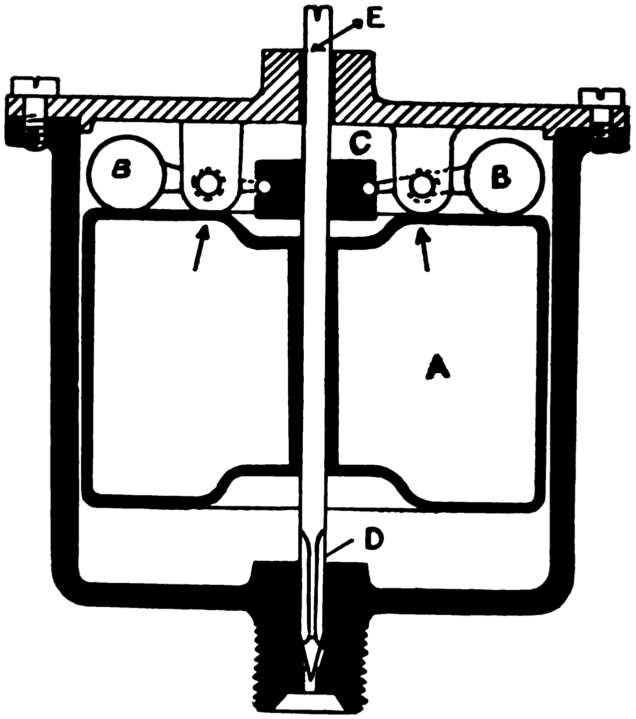
ONE of the ills that the "flesh" of the motorcycle is heir to, as Spokeshave says, is the leaking of the carbureter float. The cause may be frequently traceable to the abuse of this delicate part of the anatomy of the motorcycle, which results in a troublesome tracing of the poor running of the machine, for the diagnosis of this particular complaint takes time and much brain-twisting. There is a plunger or pin at the top of the carbureter. This is for the purpose of depressing the float to obtain an excess of gasoline, required for the purpose of obtaining an easy start. Generally speaking, it is the abuse of this plunger which causes the carbureter float to spring a leak, as even those long outside the ranks of novices use the plunger far too vigorously.

When the flooding of the carbureter is necessary one cannot gain anything by fiercely jabbing the float. Each severe bang you give to the plunger undoubtedly takes effect on any metal float, which is very light and fragile and, in time, the result of this battering is a leak. Even with a shellac-covered cork float this jabbing will wear quickly through the coating of the shellac.

The correct method of flooding the carbureter is to gently depress the plunger for a few seconds. This will cause as much, if not more, gasoline to flow into the carbureter in a given space of time than when the plunger gets a punch-ball contest, so to speak.

An interesting case of float adjustment once showed up in a second-hand machine. When the motorcycle was first in use, the carbureter suffered from continual flooding even when the machine was standing still. Of course the first remedy tried was a thorough grinding in of the needle-valve with corn emery, but, instead of improving the situation, this actually made the leakage far worse. The float was then taken out, very carefully examined and was found to be undoubtedly gasoline-tight with absolutely no sign of any leakage. The next procedure was to try the experiment of raising the jet by fitting a washer under it, but no improvement was noticed in any way although the experiment actually went as far as the fitting of various numbers of thin brass washers to try for different jet heights; but this was of no avail and did not produce any effect whatever. In the end, it was noticed that not only was the float polished and rubbed where the toggles made contact with it in operation, but there were also distinct signs that it had touched the projecting pieces—on the lid of the float chamber, to which the toggles were attached.

The sketch herewith will show the reader the internal arrangement of this particular carbureter. It will be noticed that the float is shown touching the projecting arms on the lid at the points marked by arrows. When correctly set there should be a space of about a quarter of an inch and, from the position shown, it can be seen that the immediate effect of the arms and float being in contact would be to prevent the float (A) from rising any further Thus, if the needle-valve were still open, the result would be excessive flooding. In the case mentioned, this actually did occur and was traceable to one or two probable reasons. It was suggested at the time, and this is extremely probable, that the needle-valve (D) had been ground in so many times that the two seatings had been worn away to a very great extent.



Another diagnosis was that the position of the sleeve (C) may have been altered on the spindle (E) at some time or other and the float thus given a more restricted action, preventing it from rising to its old position because of the interference of the projecting arms on the lid.

This reason may have been correct or not, but anyhow the suggestion hinted at the way to cure the defect. This consisted of unsoldering the sleeve and refixing it about one-eight of an inch higher or further away from the point of the needle-valve. The effect of this was to make the needle-valve close earlier in relation to the upward motion of the float. As soon as this was done the leakage ceased entirely.

FOR the past three years the most popular mount in England has been the single cylinder 3½ h., and the trend of design has been to reduce the weight of this type as much as efficiency allowed and to squeeze an extra horsepower or so out of the engine, without raising its compression. The line of development now shows a distinct cleavage. The Tourist Trophy race compelled manufacturers to produce special semi-racing models. These were stripped of all fittings not strictly essential to road work, and the engine was re-designed so as to produce a still higher efficiency. This was done by raising the compression ratio, so that the engine had now to be kept turning over at a high speed—it lost its flexibility, and when slowed down, would knock, overheat and stop. Much to the makers' surprise a large percentage of riders preferred these semi-racing machines for ordinary use. Thus they passed into the catalogue as standard stock sales, with no other addition than a pair of footrests to allow of an upright position when speed was not a prime consideration. Some of our makers do thirty per cent. of their trade with these semi-racing jiggers; they sell like hot cakes among the sporting boys in each club. On the other hand, a heavier and more comfortable pattern is slowly ousting the 3½-h. stock roadster of last year. This machine was originally kept light. Nowadays hub clutches and variable gears are listed as options, and makers are discovering that the man who funks a light stripped semi-racer does not care a split pin about weight. He wants an easy-starting, easy-running and troubleless machine.

Elaborate Plans for F. A. M. Meet At Philadelphia

A THREE days' endurance run, through part of Pennsylvania, New York and New Jersey, beginning and ending at Philadelphia and based upon a comfortable schedule, has been practically decided upon by the Philadelphia F. A. M. Meet Club. The route of the run had been announced as to be from Indianapolis to the City of Brotherly Love. This is not the case, however, as according to the tentative plans arranged by the committee in charge the route will be from Philadelphia to Reading, passing through Pottstown; from Reading to Allentown, through Delaware Water Gap, to Bushkill and Port Jervis. From Bushkill to Port Jervis the road, a stretch of about forty miles, runs between the Delaware River and the mountains. From Port Jervis to Middletown, the road extends to Monroe and Tuxedo to New Jersey, through the Oranges to Newark, down the coast to Pleasantville, back again to Camden and up the White Horse Pike to the starting point. The distance is about 345 miles and much of it is over some of the best roads in the country. As a matter of fact, the New York and New Jersey end of the run will be more like a pleasure trip than anything else, although there are some bad stretches between Reading, Allentown and the Water Gap.

Business sessions of the Federation will be held Thursday and Friday mornings respectively and on Friday afternoon and Saturday afternoon there will be races at the Point Breeze track. Incidentally, a most elaborate entertainment program has been outlined, among the features thus far considered being a run to Valley Forge, a smoker and vaudeville at headquarters, a short run down along the Delaware River to Essington, another run to Willow Grove Park over fourteen miles of the fine old York road, a run to League Island Navy Yard and, finally, a trip to Atlantic City, the most famous watering place in the country.

The Century Motor Club.

The accompanying photograph shows the North Broad street front of the Century Motor Club, at 1606 North Broad street, Philadelphia, a structure costing about $40,000. The first floor front is used as a library and for the enrollment of members. Back of this is the billiard and poolroom, the steward's office, and accommodations for several hundred machines. There are bowling alleys in the basement. On the second floor are lounging, card and billiard rooms, baths, etc. There is also on this floor an assembly room with a stage.

Last Thursday evening's session of the committee, which was well attended, was featured by a visit from Dr. Thornley, chairman of the F. A. M. Competition Committee, who came at the special invitation of the Philadelphians. Dr. Thornley, besides advancing some good suggestions, was quite lavish in his praises of the arrangements thus far made by those in charge and of the general excellence of the Meet's prospects.

A so-called "Glad Hand Committee" was appointed, as follows: Geo. M. Hendee, Hendee Mfg. Company, Springfield, Mass.; Stanley T. Kellogg, representing Excelsior motorcycles, New York; H. N. Kirk, Excelsior Supply Company, Chicago; Walter Davidson, Harley-Davidson motorcycles, Milwaukee; Chas. F. Bradley, Bradley Mfg. Company, Philadelphia; W. F. Remppis, Reading Standard, Reading, Pa.; E. C. Ball, Merkel-Light, Pottstown, Pa.; George W. Sherman, Thor, Chicago, Ill.; C. V. Stahl, Stahl Motorcycle, Philadelphia, Pa.; E. Kicherer, N. S. U., New York; Glenn H. Curtiss, Curtiss motorcycles, Hammondsport, N. Y.; C. L. Waters, Marvel motorcycles, Hammondsport; J. Leo Sauer, Motorcycle Illustrated, New York; R. G. Betts, *Bicycling World*, New York; L. J. G. Berger, *Motorcycling*, Chicago; J. L. Gibney, Philadelphia; George W. Robb, Philadelphia; Dr. Thornley, of the F. A. M.; G. H. Hamilton, G & J tires; M. E. Mason, Morgan & Wright tires; M. C. Stokes, Hartford Rubber Company; J. I. Bush, Goodrich Rubber Company.

J. Fred Hartman, president of the Century Motor Club and an all round active individual, is chairman of the Executive Committee. The other members of this committee are E. H. Fitch, who represents the Diamond Rubber Company; George H. Griess, one of the largest jobbers in Philadelphia; Frank Berroding, who represents the Berroding Rubber Company and G. & J. Tire Company; W. G. Rhodes, the Reading Standard agent, a hard worker and promoter of many race meets; W. R. Barnes, the Hartford Rubber Works' representative; Charles Krauss, Philadelphia's pioneer agent and proprietor of the F. A. M. repair shop, and W. A. Ennis who, though not connected with the trade, is deeply interested in motorcycling. Mr. Ennis has not only agreed to give his services to the task of making adequate preparations for the meet, but he has already donated $25.00.

The Finance Committee is composed of W. R. Barnes, Frank Berroding, H. Kimmel, who represents the B. F. Goodrich Company; C. A. Wigmore, of the Manufacturers' Supply Company; E. H. Fitch and Harry Colbath. Runs and Tours: Chairman, Charles Krauss; Clement Lowe, R. S. Martin, Joseph Murray and Alexander Klein. Publicity Committee: Frank Berroding, Charles Krauss, Harry Lasher and William Gray. Entertainment: Chairman, Thomas Desmond, who has had charge of the club entertaining for a number of years and has earned a first class reputation in that capacity; Frank Isaac, Clarence Sears, J. H. Clark, Dr. C. S. Schwenk, Dr. W. H. Moore, L. V. Leech and R. N. Storey. Hotels: Robert Andorf and W. A. Ennis. Racing: Chairman, Alexander Klein, himself a track rider and thoroughly familiar with the subject; L. J. Springler, Curtiss agent; Charles Bradley, one of the firm manufacturing the Bradley machine, and Charles Billman. Prizes: George H. Griess, George Rheinbold, Yale agent; H. and C. V. Stahl of the Stahl Motor Works, and H. Kimmel. The general secretary is William Worthington and the treasurer W. A. Ennis, to whom contributions should be directed at the club's headquarters, 1606 N. Broad street.

SINGLES STILL LEAD IN GREAT BRITAIN

The Latest English Tendencies—By B. H. Davies.

UP to date our trade has concentrated pretty heavily on a roadster pattern of 3½-h. single cylinder. This line of development is now about to cleave in half, as Pat said when he fell out of a sixth story window and landed sitting across an iron fence. The causes are these: Our cross-country roads are so good that a lot of middle-aged commercial travelers—"drummers" you call 'em, I fancy—have taken to motorcycling, and they have asked for something which can climb greasy hills slowly, which can cart a lot of baggage, and which is weatherproof. On the other hand our roadburning braggarts keep on asking for less weight, fewer fittings, and a higher engine compression. Between the two extremes the old type of fast roadster isn't selling much. The drummers have been offered a multiple disk clutch in the back wheel, but they keep shouting for more carrier space, more springing, a variable gear, bigger mudguards and so on. So next year we are going to see two standard 3½ h. models in most catalogues. One will be stripped to the skin, and will do sixty an hour on the road at will, weighing 140 pounds, geared rather high, with a high compression engine, and no fittings worth talking about; a regular Arab barb in fact. The other will be more of a caravan—scaling 175 pounds no doubt; sprung fore and aft, large saddle, very big mudguards, large platform astern for samples, two-speed gear in the rear hub, mudshields and apron, magneto in a rainproof case, heavy and faddy by comparison, but a clean, sure mount in the worst of weathers.

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ENDURANCE RUNS.—Two big endurance runs are booked by the A. C. U., which corresponds to your F. A. M. One is between Land's End and John o' Groats—T. K. Hastings' old trip. It starts on July 4, occupies six days, and the route has been wound in and out a bit, to work out at 1,000 miles. There is very little rough going in it, and with good luck and good weather it is a soft trip. But worse hills than any Hastings ever saw over here have been thrown in—one called Amulree is a real teaser--three hairpin corners on a 20% grade—it will unsaddle most of the entrants if the weather is bad. The time schedule has also been smartened up a bit, and the boys are not to be given an hour each morning in which to make repairs. The other endurance run is far, far stiffer, and is organized by the Scotch clubs. It also covers 1,000 miles, and lasts six days, taking the men over all the worst going and up all the stiffest precipices in Scotland. The trade does not support it at all, considering it too stiff for advertising purposes, but it will get a good entry of sporting amateurs, and will show up any weakness that want eliminating from the modern machine. Nobody can hope to ride over so much rocky going without serious tire troubles, and probably no one rider will succeed in making a clean ascent of all the hills. Also it is run to an even stiffer time schedule than the End to End, and even in June the Highland weather is often winterly—roads churned into seas of mud and boulders, fierce gales raging down from the north—Ugh! I shall be there with my thickest oilskins.

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CARBURETER DESIGN.—Of late there has been a big change in our carbureter design. So far we have planked our dollars on the highly efficient racing type, so sensitive that there was scarcely time to leap into the saddle before the engine would choke for want of the air lever being thrown open, and so that on a bad hill if you mussed your air adjustment a notch too far, the machine jibbed. The gray-whiskered business men who are now buying motorcycles by the score for commercial use don't like this. So our men are evolving automatic carbureters by the dozen, and I don't fancy many makers will face the public at our show next November without one. The practical business rider wants an automatic machine, and a single lever carbureter is a good way towards it.

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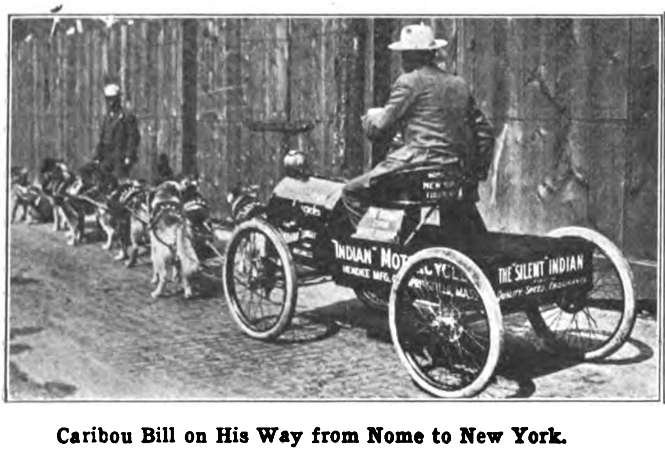
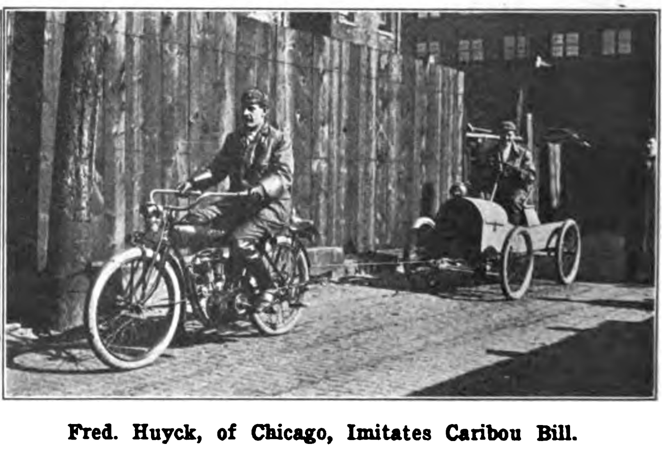
THE Advent of the Indian.—Some hard things have been said and written in the past by our fellows about American machines, but there is no doubt the Indian has caused a rare flutter in our dove cotes. It does not invariably win, but it is invariably dangerous, and there is no doubt at all that our twins will have to hustle some if they are to keep on the road against it. The Indian banner is gradually attracting a smart little coterie from our crack competition riders, and no machine is viewed with such respect when any big race begins to wag our tongues. No large factory this side has ever devoted real thought and money to the twin cylinders, but the Indian has shown us that the game is worth the candle, and I quite expect several new twins will appear on the market next year, and give Wells and the Hendee people a tougher proposition than they have yet struck. Our makers have long taken the line that a good single was a better seller than a good twin, and only small factories with racing interests have seriously studied the twin. But some of them



Caribou Bill on His Way from Nome to New York.



Fred. Huyck, of Chicago, Imitates Caribou Bill.

are now casting envious eyes on the Indian sales, and we shall see a big factory or two on the bummel ere long. This talk is not to discredit the Indian victories. We have not got many twin cylinder engines, or many twin cylinder enthusiasts, but the small handful who are running Jap twins against Wells and Company are real hot stuff, and you have to get up early and keep your eyes skinned to take much change out of them.

* * *

EFFECT OF ACID AND RUST ON BALL BEARINGS.

By HENRY HESS, of the Hess-Bright Mfg. Co. of Philadelphia.

I AM in a position to know fairly well what troubles develop with ball bearings, since my company supplies them, and since every chap who has a grievance registers his kick with us. *I find the chief causes of trouble to be dirt, rust and acid.* Pretty nearly every one to whose attention grit and rust are drawn will recognize and acknowledge their presence and agree that they cannot be considered anything but harmful. But when acid damage is referred to, that is met with an incredulous stare if not a downright denial of its possibility, and a request to be told where acid could possibly come from.

To those familiar with lubricants the thing is not so mysterious. I remember very well an occurrence of years ago, when I was building machine tools, and was interested in ball bearings only because those in my bicycle either always wanted a new ball or taking up or something. It so happened that a certain machine was set back for some more urgent job. On taking it up again the main spindle journal was found to be badly scarred with deep, irregular channels and pits. Wild theories of the existence of a new bug that thrived on steel were propounded, but the solution was much simpler. The bug was found to be a combination of waste, acid oil, and heat to make the acid action more energetic.

The two races and the series of balls that I have circulated were recently returned by one of our customers. They constitute a beautiful example of the action of an acid lubricant. The balls are irregularly etched on their surface. The races are similarly etched. There are also transverse discolored bands that are slightly etched in the ball tracks. These correspond to the positions of the separator end plates, and show that the machine stood for some time. It is a peculiarity that acid acts more energetically where the metal surfaces are in more intimate contact. This is probably because the small space acts by capillarity to set up a slight current to always draw from the adjacent masses a fresh supply of unspent acid lubricant. Now, it is a very fully demonstrated fact that the life of a ball bearing is proportional to the perfection of the surfaces of the balls and races. Poor finish means short life; acid pockmarks are not only symptoms of a serious ball-bearing disease, but in themselves cause its early demise. That acid lubricants do produce these symptoms is clear enough from the parts exhibited.

The remedy is the use of lubricant that is neutral and that will remain so. There are many such to be had, some at high and some at reasonable prices. It does not follow that a costly lubricant is free of acid taint. In general the mineral oils are best. Animal or vegetable oils are to be avoided; though they may not contain free acid when bought, they are fairly certain to develop it under suitable conditions of exposure to heat, sunlight, etc. The best test that I know of is to take a piece of brightly-polished clean steel, wrap around this heavy threads from waste thoroughly soaked in the lubricant under test, and expose this to the sun's rays in some fairly warm place. Suitable oil or grease will show no etching, even after months of exposure. In bad cases the oil will stand convicted after a few hours or days, or at most a week or so. In any event, the test is one that can be depended upon to reveal the secret presence of any kind of acid.

FROM COAST TO COAST

Volney E. Davis, the Latest Trans-continental Rider

BOUND for New York from San Francisco, Volney E. Davis arrived in Chicago a few days ago mounted on a 5 Indian. Mr. Davis, after an informal reception at the headquarters of the Chicago club, on Thirty-third street, proceeded to the Chicago branch of the Hendee Manufacturing Company, at 1251 Michigan avenue, where he garaged his machine until ready to resume his journey.

Mr. Davis was a travel stained tourist when he reached Chicago. His face was a strawberry red when he dismounted at the clubhouse, owing to the exposure to the weather, but he stated that he was feeling none the worse for the trying trip overland.

"It has been tough going in spots," said Mr. Davis. "The little machine has stood me in good stead and has performed remarkably under most adverse conditions. I came to Chicago via a Southern route, and had fairly good riding after leaving San Francisco until I reached the Yuma desert.

"I encountered a succession of sandstorms while crossing this desert. It was a test of endurance from Tucson, Ariz., to El Paso, Texas. I was forced to use the railroad right of way through most of Arizona, where they charge 60 cents a gallon for gasoline. In all, I have ridden the railroad tracks about 1,500 miles since leaving Frisco, in February.

"The only discouraging feature of the trip was experienced while crossing the desert. I became ill from drinking alkali water and plugging through the deep sand, and was glad to find a Mexican ranchhouse, where I remained over night. I came direct to Chicago from Dallas, stopping over at Oklahoma City, Kansas City and St. Louis. I do not anticipate any serious trouble on my way to New York."

COMPETITION ON TRACK, ROAD AND HILL

The Wichita Meet—Racing at Olympic Park and Elsewhere.

BY sending his N. S. U. racer twice around the half-mile track at the Wichita (Kans.) fair grounds in 1 minute and 12 seconds, thereby lowering the previous track record half a second, Dan Randall won the loving cup given by the Wichita Motorcycle Association for the fastest mile. The time was made in [illegible] ten-mile go, which Randall won after Ray Weishaar had dropped out of probably the prettiest race ever ridden in that city, owing to a bad spill.

Max Wilson, riding a small Reading Standard, was the only entry for the first race, going a mile against time in 2:03. The second event was a five-mile free-for-all twin event. Claude Andrews, on a Reading Standard, won with Lindel of Kansas City, on a Merkel, second, and Ray Hockaday a close third. Randall's N. S. U. blew out a tire when he was leading in the third mile.

Norton of Kansas City, won the three-mile private owners' race on his Merkel in 4:08½. Cooper, of Topeka, and McGill had the real race for second and third, the former winning by a few feet. Clements rode fourth. All except Norton rode Harley-Davidsons. Mack Wilson had no trouble in winning the five-mile race, which came next, from Dan Randall. Wilson rode a Thor and Randall an N. S. U.

The pursuit race developed a pretty contest, Randall being the last man to be lapped, and riding more than twelve miles before Norton succeeded in passing him. Norton won rather easily in the two-mile novelty race. Andrews was second on an Excelsior, and Hockaday third on a Thor.

Ray Weishaar won the five-mile for trade riders in 6:50½. Cooper came in second. Weishaar was again a victor in the pursuit race for twins, which was ridden next, Randall again sticking it out for the second man. It took something over six miles for the Indian to gain three-eighths mile on the N. S. U. in this race, the time being 8:15½. Hockaday lapped Andrews and Bennett early in the race, but was shortly eliminated by Weishaar.

The slow race of one-eight mile went to Mack Wilson on his Wilson Special. The riders were not allowed to pedal or restart their engines. Bennett was second. The time was 4 minutes, 12½ seconds. In the handicap race for twin and single cylinder machines, Randall, on a twin N. S. U., was first, Ray Hockaday, on a single Indian, second, and Lindel of Kansas City, on a Merkel, third. Time, 6:22½. Hockaday, who was leading the field, got a bad fall in this race also, but came up smiling as usual. Norton then rode an exhibition mile on his Merkel, going the distance in 1:19¾.

The ten-mile race had four starters, Randall, N. S. U.; Weishaar, Indian; Lindel, Merkel; and Bennett, Yale. Bennett dropped out at the end of the first lap with his wheel stand down. Lindel was lapped by both other riders before the finish. But between Randall and Weishaar there was the prettiest race of the day. Randall's racer was faster than Weishaar's Indian, as was shown on the straight stretches, but the brilliantly daring riding of Weishaar on the curves served to keep him at Randall's elbow mile after mile. Several times it looked as if the flying pursuer would be able to take the lead as the machines came off the curves, but each time Randall would put on an extra ounce of speed and win back his lead of a few feet. Weishaar fell at the beginning of the tenth mile, leaving Randall to complete the race a winner.

RACING was inaugurated at Olympic Park by the Jersey Club, May 15. The "bill" was good and the attendance likewise. The five-mile open event, in which there were eight starters, was very exciting. Karl Segelbach registered a victory in the three-mile novice race, and came right back with another win over a field in the big event. He took the lead for the first two miles and then was gradually overhauled by Percy Drummond. The two fought it out for nearly two miles and then Drummond took the lead. He had the pole, a keen advantage, and seemed to have the race well in hand until entering the stretch for the last lap, when Segelbach came with a rush down the stretch and nipped the leader twenty yards from the tape.

The fastest time of the day was made in the match race between William James and George Reichey. It was a ding dong test, James winning in the last lap by ten yards. The time of the winner averaged less than 1 minute 13 seconds to the mile, very close to the track record. The results follow:

Three-mile novice—Karl Segelbach, first, 5 Indian; Boschen, second, 5 Indian; H. E. Coryell, third, 5 Indian; time, 4:31.

Five-mile open—Karl Segelbach, first, 5 Indian; Percy Drummond, second, 5 Indian; George Riechey, third, 6 Yale; time, 6:45.

Three-mile handicap—Krieger, first, 4 Harley-Davidson, 37 seconds; William James, second 3½ Indian, 25 seconds; third, George Riechey, 6 Yale, 9 seconds; fourth K. Segelbach, 5 Indian, scratch; time, 4:17.

Match race, two miles—Won by William James, 5 Indian; second, George Riechey, 6 Yale; time, 2:35.

Match race, two miles—Won by P. Krieger, 4 Harley-Davidson; second, J. Pfleider, 3 Yale; time, 2:50.

FAST time, although not of a record-breaking order, characterized the Rose Carnival race meet at San Jose, Cal., May 13, 14 and 15. Honors were shared by Balke and Graves. The summaries:

Friday, May 13—Five miles, stock twins—Won by M. J. Graves, Indian; second, W. G. Collins, Indian. Time, 5:04 2-5. Charles Balke, Thor, fell. Five miles, stock singles—Won by Charles Balke, Thor; second, M. J. Graves, Indian. Time, 5:06 1-5. Five miles free-for-all—Won by M. J. Graves, Indian; second, Charles Balke, Thor. Time, 5:37. W. G. Collins, Indian, fell.

Saturday, May 14—Five miles free-for-all, singles—Won by Charles Balke, Thor; second, M. J. Graves, Indian. Time, 5:05 1-5. Five miles free-for-all, twins—Not finished. Graves leading at one mile. Five miles free-for-all, stock machines—Won by M. J. Graves, Indian; second, Paul Rea, Thor. Time, 6:26 1-5.

Sunday, May 15—Five miles free-for-all, stock machines—Won by Charles Balke, Thor; second, P. Rea, Thor. Time, 6:52 1-5. Five miles free-for-all, singles—Won by Charles Balke, Thor; second, Stone, Thor. Time, 4:32. Five miles free-for-all, stock machines—Won by Koschnitzky, Thor; second, Charles Balke, Thor. Time, 7:13.

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THERE promises to be a big race meet at Crittenden Park, Rochester, N. Y., the Fourth of July, under the management of the Rochester Club. Many Syracuse and Buffalo riders will participate and the competition is likely to be productive of some very exciting events.

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PLAINFIELD, N. J., will on June 18 be the scene of the second race meet to be conducted under the auspices of the local club. Arrangements are being made to have a number of classy riders compete.

JERSEY CLUB'S OPENING MEET — HARLEM CLUB'S CENTURY RUN

THE New Jersey Motorcycle Club was unfortunate enough to pick wet weather to start its season's races at Ryle Park, N. J. The original date was May 8, but the races were postponed on account of rain, which again interfered when the club attempted to run off the meet on Saturday, May 14. The attendance was very poor, as the clouds hung low and heavy with occasional showers, and when it was time to start the races there was practically no one on hand except officials and contestants. After a consultation it was decided to abandon the original programme and substitute one of an impromptu order.

The first event was a friendly match race between Frank Seery, captain of the N. Y. M. C., and L. H. Guterman, president of the Harlem Club, both mounted on 4 Indians. Machines and men were evenly matched, and they furnished a very close and interesting contest, neither one getting very far ahead of the other, Guterman being very close up when Seery flashed across the tape a winner.

The next race, two miles for novices, 30:50 class, brought four men to the tape, one of whom could not get his machine to start at the pistol and was compelled to drop out. When the remaining contestants were rounding the lower turn on the third lap it was noticed that Milton Levy, of the Harlem Club, who was leading, was not holding to the pole line as usual but was going up the bank. But before any one could make a move he had hit the rail fence and had been hurled over the embankment. When Levy was picked up he was unconscious. He was taken to St. Joseph's Hospital at Paterson. It was there reported that Levy would completely recover.

The next event, a five-mile open, 50 cubic inches standing start, brought Hart, R-S, and Goerke, Indian, to the tape, but an accident to Hart's machine left Goerke to go the distance alone.

Event No. 4 was three miles for private owners, 50 cubic inches, between Drummond, of the New Jersey Club; Seery, of the New York, and Kirschoff, of the Harlem. The first two made a very pretty race, Drummond winning on the last lap.

Milton Levy, Secretary Metropolitan Association.

The next race was a three-mile consolation between Hart and Goerke and was hotly contested, first one and then the other leading. On the last lap Goerke seemed to have a little speed up his sleeve, for he passed Hart in the back stretch and came home a winner by forty yards.

The last race, three-mile open scratch, 30:50 cubic inches, brought out Goerke, Hart and Seery, and was very interesting to the spectators, first one and then the other being in the lead until coming into the home stretch for the finish, when a broken intake valve on Goerke's machine put him out of the running, Seery beating Hart to the tape for first prize.

BALKE AND EARHART STAR PERFORMERS.

BALKE, the intrepid Thor rider, is already doing great work on the Pacific Coast. At the recent three days' race meet in San Francisco, Balke was the star, although Earhart, also on a Thor, did excellent work, winning three firsts the second day. Balke was first in two of the five-mile open events and also in the one mile. He took second place in each of the four races won by Earhart. In each instance they had among their competitors Collins on an Indian, who had to be satisfied with winning one of the five-mile open races. In the last event Earhart, riding 5 miles in 4.22½, broke the dirt track record for that distance, also for the mile, one of which he traveled in 51¼ seconds.

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PATROLMAN CHARLES MURPHY, popularly known as "Mile a Minute Murphy," of the New York Police Department, has resigned. Murphy, who has made quite a reputation as a bicycle racer, and has plenty of experience on motor-driven two-wheelers, expects to figure largely in motorcycle race meets. In view of Murphy's record as an intrepid rider, it is safe to assume that he will be a very strong competitor on the track.

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FRANK BECK, of Joliet, Ill., was the winner of the five-mile free-for-all under the auspices of the Chicago Club at Ingall's Park recently. There were seven starters and Beck won by nearly a half mile, his time being 5:52. The ten-mile for single cylinders, four men starting, was won by William Walsh in 12:02.

SEVENTY-FIVE PER CENT. PERFECT.

EIGHTEEN of the twenty-four starters scored perfectly in the Harlem Club's first century, from New York to Newburgh and return, by way of Peekskill, Fishkill Landing, Tuxedo, Suffern and Ft. Lee. The scores:

L. H. Guterman	Harlem Club	5	H. Indian	Perfect
R. T. Wennestroem	Harlem Club	5	H. Indian	Perfect
A. Sender	Harlem Club	2¾	H. Light	Perfect
H. J. Moultrie	Unattached	6	H. Curtiss	Perfect
A. Leslie	Unattached	4	H. Excelsior	Perfect
J. Siemsen	Unattached	4	H. Excelsior	Perfect
P. C. Blanco	Unattached	5	H. Indian	Out
F. C. Kick	Unattached	5	H. Indian	Perfect
I. J. Wallace	Unattached	4	H. Excelsior	Out
M. P. Sullivan	Concourse	4	H. Excelsior	Perfect
B. J. Huerlander	Unattached	3½	H. Excelsior	Perfect
A. Kreuder	New York	4	H. M. M.	Perfect
H. B. Lyons	New York	7	H. Merkel	Out
J. W. Brewer	New York	7	H. Indian	Perfect
H. Mapp	New York	5	H. Indian	Out
W. MacClelland	Concourse	7	H. Indian	Perfect
Frank Seery	New York	4	H. Indian	Out
R. S. Gray	New York	6	H. N. S. U.	Perfect
F. Voelker	New York	6	H. N. S. U.	Perfect
A. Bartsch	New York	6	H. N. S. U.	Perfect
Frank Hart	Harlem	7	H. R-S	Perfect
Rosen Bros.	Harlem	6	H. N. S. U.	Perfect
R. G. Hanna	Harlem	4	H. Royal	Perfect

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IRVING HOWICH, Dale Trowbridge, S. W. Martin, Harry Nixon and Albert Aid divided honors at the Chillicothe, O, race meet Sunday, May 15. Martin established a local dirt track record by doing five miles in 6:19, his fastest mile being 1:11.

ASSOCIATION ORGANIZED TO MANAGE GUTTENBURG TRACK

THE mile track at Guttenburg, N. J., on which several very successful race meets were run off last year, has been taken over by a number of members of the New York Motorcycle Club, who have organized the Manhattan Racing Association, to hold motor contests on the Guttenburg course. The officers are as follows: Stanley T. Kellogg, president; Frank B. Widmayer, vice-president; Frank P. Seery, secretary; John Tower, treasurer, and R. S. Morton, chairman Board of Governors. It is the intention of the association to have races every Sunday and most of the Saturdays, and the track has been put in shape for the opening meet, scheduled for June 5.

An efficient corps of officials has been secured, practically every club and make of machine being represented. The New York Timers' Club will do the timing, using a special system. Among the events scheduled is a 24-hour two-men team race, July 16 and 17, with handsome prizes to the winning teams and individual riders and also an hour mileage prize.

The estimated cost of opening the track will be nearly $5,000, as the managers intend to replace the club house which was destroyed by fire last fall, build grand stands and bleachers to accommodate 5,000 people, press and judges' stands. etc. There will also be eight separate quarters provided on the infield, where the different contestants may store their machines and make repairs. The press stand will be equipped with a telephone so that the newspapers may be furnished with the results as soon as the races are over.

It is not the intention of the Association to directly promote any races except on days which are not taken by the clubs themselves. Among the clubs which have arranged to hold their races at Guttenburg are the Concourse, Harlem, New York, Linden, Long Island, and it is probable the New Jersey club will have some of its meets there. The prizes for each meet will run in value from $150 to $500.

If the professionals who are now on the Pacific Coast can be induced to come on there will be one or two events on each programme for them. In any event, from present indications, there will be big doings among the speed merchants at Guttenburg this year.

A HAZARDOUS FEAT.

RISKING his neck rather than face the taunts of his associates, George Schmidt took a death defying ride on the Royal Gorge at Riverview Exposition in Chicago one day last week. Schmidt, though he holds the five-mile indoor track record, always has been known as a conservative rider. Friends have frequently teased him on this point, until following an argument a few weeks ago he declared he'd ride his machine over the dips and humps of the Royal Gorge at Riverview and show them once and for all that he was game.

He made his start in view of thousands of park visitors. The first dip was negotiated safely, but on starting up the opposite incline his engine went dead when about fifteen feet up. The machine slid back and Schmidt fell to the platform. He was unhurt. On his second start he got away perfectly, and at a speed of fifty miles an hour at some points, safely covered the 4,000 feet of dips and mountainous inclines.

The spectators held their breath when Schmidt made his flying dash down the big seventy-five foot dip and cheered when he bobbed up on the opposite incline smiling. On the double or "camel's hump he was thrown high from the seat by the impact and only by the narrowest margin did he regain his seat and prevent the machine from skidding and throwing him from the structure.

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THIRTEEN PERFECT SCORERS.

THIRTEEN of the eighteen riders who entered the run conducted by the South Bend Club finished with perfect scores, as follows: L. D. Durst, Yale; M. S. Otolski, Yale; W. Shammel, Excelsior; G. McNeal, Excelsior; F. S. Andrew, Excelsior; R. M. Webster, Harley-Davidson; C. Weatherhead, Harley-Davidson; E. Crockoske, Reading-Standard; and G. Bushnell, M. G. Hodson, H. Hagedorn and V. Yoder, who rode Indians. Scores of 900 each were made by G. H. Snyder, Thor; W. R. Wade, Wagner, and V. C. Paxson, Harley-Davidson.

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SHINGLE HILL CLIMB NEXT WEEK.

SHINGLE HILL, West Haven, Conn., will on June 7 be the scene of the third national climb under the auspices of the Yale University Club. There will be three motorcycle events, prizes for the winners of which have been offered by the Yale University motorcycle organization.

STEVENS STARS AT DENVER.

ARTHUR STEVENS was the individual star at the Mid-May race meet of the Colorado Springs Club at Roswell Park. Although the wind made bad going for the riders, several hundred spectators found plenty to interest them in the races. The summaries:

Five-mile single stock—Art Stevens, Indian, first; Herbert Stratton, Merkel, second; F. E. Stratton, Excelsior, third. Time, 7:42. Ten-mile twin handicap—Art Stevens, Indian, first; Paul Williams, Curtiss, second. Time, 14:48. Five-mile single, club championship—Earl Moore, Excelsior, won. Time, 6:55. Unlimited pursuit for singles—Art Stevens, Indian, first; Herbert Stratton, Merkel, second; Earl Moore, Excelsior, third. Ten-mile single stock—Art Stevens, Indian, first; Bill Gaskin, Harley-Davidson, second; C. Burgess, Harley-Davidson, third.

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ANOTHER GLOBE-GIRDLER.

S. ROSENTHAL, a member of the Chicago Club, intends to complete a tour of the world, leaving Chicago July 3. It is his intention to follow the route covered by the Thomas car several years ago. He will ride from Chicago to Los Angeles and thence to Alaska, cross Behring Strait by boat, then down through Asiatic and European Russia and the other European countries to the French coast, where he will embark for London. He will cross the Atlantic in the usual way, and finally ride from New York to Chicago.

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GOODLY CHECK FOR SANCTIONS.

THOSE who have found pleasure in criticising the Metropolitan Association of Motorcycle Clubs may be interested in knowing that the treasurer of that organization has just handed over to Chairman Thornley a check for $59, probably the largest that the Competition Committee has ever received for racing sanctions.

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FAST GOING IN THE SOUTH.

THE distance between Birmingham and Atlanta has just been covered by Robert Stubbs in seven hours and five minutes. This is faster than any time previously made by either a car or a motorcycle.

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VAL JANSEN was the winner of a ten-mile race pulled off at the City Park track in New Orleans. He rode a twin Indian. G. L. Leach, on an Indian single, was second.

Taral Trophy Run Proved a Very Hard Test

THE N. Y. M. C. run to Hudson and return May 22 for the $50 trophy donated by Fred Taral, ex-champion jockey, and now proprietor of the Monogram Hotel, 2306 Broadway, New York, resulted in the best contest ever held in New York, and in the award of first prize to Harry Mapp, who rode an Indian.

Although the day dawned dark and gloomy, with the rain clouds hanging low, threatening every minute to burst, the weather did not deter seventeen enthusiastic riders from lining up for the start. Considering the fact that there was nothing allowed for variation of watches, and that the riders were checked at a secret control, the outcome was entirely up to the expectations of the committee. The ride of 226 miles did not seem to bother the competitors as much as did trying to find out where the secret control would be, but all in vain. To prevent any claim of collusion the committee wrote four different destinations on cards and sealed them up in separate blank envelopes, which were turned over to the referee, who in turn had a bystander choose one, putting the three others in his pocket, giving the selected envelope to the one who was to be in charge of the secret control.

Each entrant was provided with a card upon which were printed the distances between towns, total mileage, checking points and time due, so there could be no mistake. Each rider was given an initial credit of 1,000 points at the start and lost two points for every minute late or early at controls. The secret control was used only to determine the Taral Trophy award. Mapp, who won out, clinched his hold on the prize at the secret control, as he arrived there within three seconds of the time due; another passed within nine seconds.

A quite remarkable thing was the absence of trouble, the only ones to suffer at all being Mapp, who lost the screws which held his mudguards; Klages, who had a cut tire and brake trouble, and Gaucher, who sustained a fall and broke his stand. Instead of the bad roads anticipated, the riders all agreed that they were fine.

The donor of the diamond medal was so well pleased with the result that he authorized the committee to get up another event of the same character, to be run off later in the season. When Mr. Taral was riding as a jockey he used a bicycle regularly as part of his training. He is now very much taken with motorcycling and is thinking of purchasing a machine for himself. The names of the medal winners follow:

Harry C. Mapp, 5 Indian; J. A. Gaucher, 6 Thor; John J. Cox, 6 Merkel; H. B. Lyons, 7 Merkel; D. Molin, 4 N. S. U.; Fred Voelker, 6 N. S. U.; R. S. Gray, 6 N. S. U.; Frank Hart, 7 R-S; Thos. Rice, 5 Indian; A. G. Chapple, 7 Merkel; J. F. McLaughlin, 7 Merkel; Chas. Ruck, 6 Merkel; Geo. A. Ashley, 7 Indian; J. W. Brewer, 7 Indian.

LAST MEET ON THE COAST.

LOS ANGELES.—The Coliseum track was closed for the summer a week ago Sunday. The meet was featureless except for a dead heat between Kittle and Seymour. Incidentally the former turned professional "on the spot," as it were. The summaries:

Six miles for stock machines, 30½ cube inches—Won by Irwin Knappe (Indian); second, J. Dawn (Indian); time, 7:38⅖. Four miles match, 48 cubic inches—First heat, tie between Hubert Kittle (Indian) and Raymond Seymour (R-S); time, 3:36⅖. Second heat won by Seymour; time, 3:53⅗. No third heat. One-half hour free-for-all, professional—Won by Fred E. Whittler (Indian); second, Arthur Mitchel (Merkel); third, Jacob DeRosier (Indian); distance 30⅓ miles. Two miles handicap—Won by Irwin Knappe (Indian, ¾ lap); second, Raymond Seymour (R-S, scratch); third, A. Ward (Thor, ¼ lap); time, 1:50. Eight miles free-for all, professional—Won by Fred E. Whittler; second, Arthur Mitchel; time, 7:51⅗.

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CHAIRMAN J. P. THORNLEY, of the F. A. M. Competition Committee, has received from Secretary F. S. Straight, of the Autocycle Union of England, a letter in which the latter advises Dr. Thornley that steps are now being taken in Great Britain with a view to making some arrangements, if possible, for international competitions. It will be remembered that at the last annual conventon of the F. A. M. Dr. Thornley was directed to take this up with the English authorities. While it is difficult to conceive just how such competitions can be made possible, the matter has been placed clearly before the folks on the other side, who seem to be just as anxious as we are. It is now up to them to present some kind of proposition for action thereupon by the American Federation. It is probable that the Autocycle Union will have something definite to propose by the time the next F. A. M. Assembly is called to order in Philadelphia.

⁂

THERE will be no motorcycle events at the annual hill climb promoted by the Wilkes-Barre, Pa., Automobile Club.

MINNEAPOLIS TWIN FIRST IN HILL CLIMB.

A SEVEN horsepower Minneapolis, driven by R. S. Porter, easily outdistanced all other machines in the twin event of the hill climb conducted under the auspices of the Minneapolis Club on Riverside hill, a week ago Monday. Bert Ostrander, on a Harley-Davidson, captured first place in the single cylinder class. The summaries:

SINGLE CYLINDER CLASS.

Rider and Machine	Time.
Bert Ostrander, 4 Harley-Davidson	0:35⅖
Chas. Egberberg, 4 Royal Pioneer	0:35⅘
Ray Able, 4 Excelsior	0:36
D. C. Hawley, 4 Minneapolis	0:36⅕
E. H. Hammer, 3½ Indian	0:36⅗
J. H. Michaelson, 4 Minneapolis	0:38
Chas. H. Hester, 4 Excelsior	0:38⅘
Oliver Gould, 4 Thor	0:38⅘
C. A. Lilberg, 4 Minneapolis	0:47
Bert E. Bechman, 4 Eagle	..

Winners on formula—E. H. Hammer, first; Ray Able second.

TWIN CYLINDER CLASS.

Rider and Machine	Time.
R. S. Porter, 7 Minneapolis	0:30⅗
L. D. McCall, 7 Indian	0:33⅗
W. E. Barnaby, 5 Indian	0:34⅕
W. E. Michaelson, 5 Minneapolis	0:35⅘
E. L. Overholt, 3 N. S. U	0:45⅘
Harvey E. Baudete, 6 Merkel	..
Carl J. Johnson, 5 Indian	..

Winners on formula—E. L. Overholt, first; W. E. Barnaby, second.

⁂

FAST RURAL DELIVERY.

A RECORD-BREAKING R. F. D. trip was recently made by M. J. Benson, of Windom, Kan. Benson made sixty-seven stops, sold seven money orders, made fifty-five sales, performed twenty-eight cancellations, and delivered seventy-nine papers, forty-five letters, thirty-three cards, twenty-one circulars and two packages, all of which he accomplished in the rather remarkable time of 1 hour and 22 minutes.

TIPS AND TOPICS

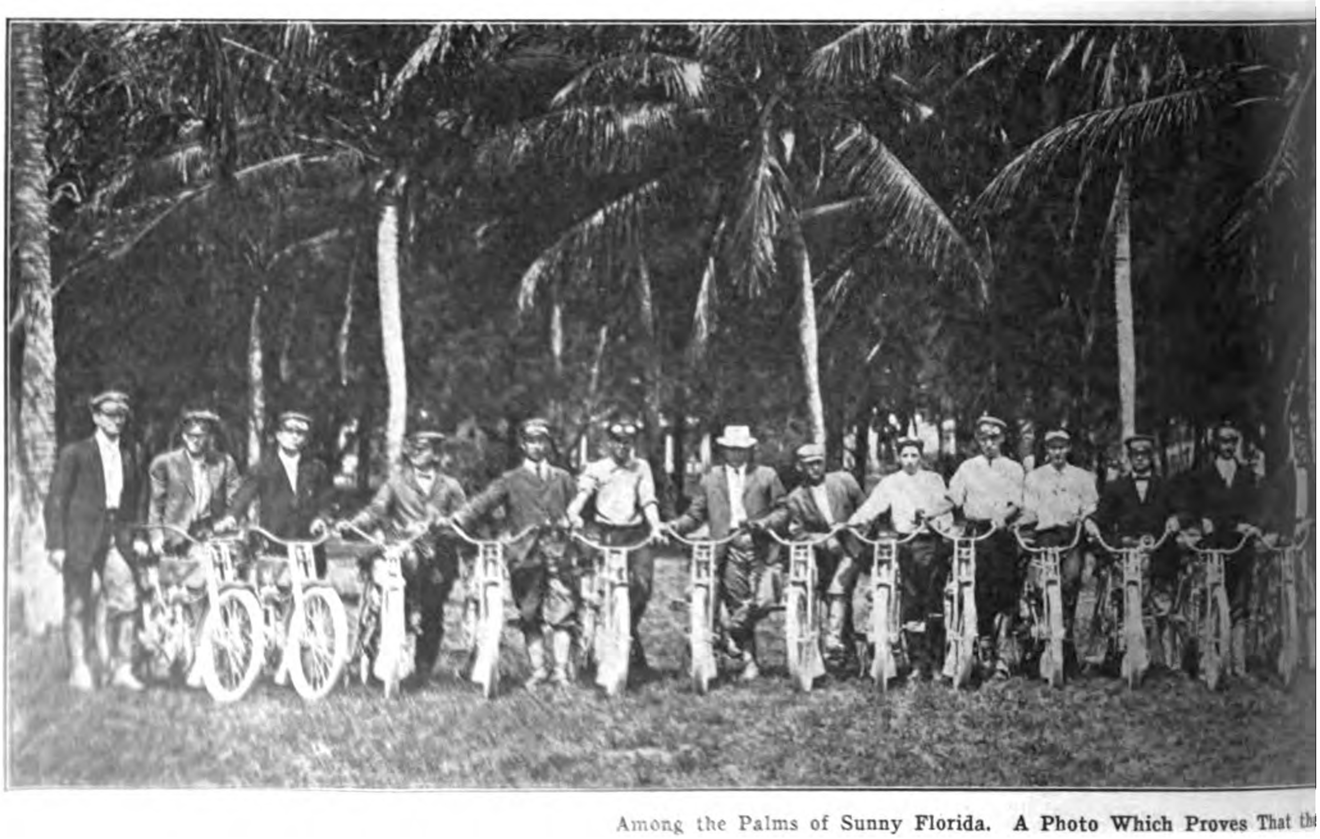
By THE VETERAN.

UNDER the very best of conditions, a tinkering job of a repair by the roadside is hardly pleasant. Under the heading "The Crowd that Crowds," the British *Motor* takes up the eternal question of whence does the crowd spring. The humor of the article in question is fine and I have pleasure in giving an extract: "Say the engine stops on a moorland road in Scotland. The only living objects in sight are the sheep and an odd curlew. The scene is one of complete peace, and, having lit the customary cigarette, he pops his head under the hood for a survey. Lo! when he looks round again the nucleus of the crowd has already formed. By the time he has opened the tool box and disgorged a spanner there will be quite a little gathering." Possibly a member of a psychical research society would say that at such a moment the motorist's vision becomes distorted and he sees human beings in boulders of rock and sheep. We do not pretend to offer an explanation of the phenomenon, but experience has shown us that it is quite useless for any motorist to imagine that he will balk the crowd of its legitimate prey. We all know the small boy pest who blows the horn when one is struggling with the front wheel bearings; the pseudo-mechanic who offers us strange advice as to the probability of there being a blow-fly in the carbureter; the idiot who wants to learn elementary construction of gas engine principles and seizes the golden opportunity to improve his lack of knowledge on the subject; these are to be found in every part of the world; indeed, were one to break down in the centre of the Sahara Desert, their Arab equivalents would materialize out of the sand. The crowd, with its keen satirical wit, its wonderful intelligence, its wondrous lack of other occupation, its unwashed smell is known to us, alas, only too well. The extraordinary part of it is that the crowd never changes in its component elements; we "feel" its approach and know instinctively what it is going to do and say beforehand. It is unfortunately an evil which nothing can dislodge short of dynamite, and, being so, we must try to appreciate it and put up with its existence.

⁂

Motorcycle Preferred By Car Owner.

It may seem strange to some people, yet I prefer the motorcycle to the automobile. Although I possess a 1910 thirty horsepower car of well known brand, so to speak, I only use the latter for business purposes. For long trips and pleasure riding the motorcycle is my preference all the time. Can I say more than this in favor of our sport? Again, I worked out comparative cost of a railroad, automobile and motorcycle journey which shows clearly where we have the pull. This trip cost me $28 by rail, $18.50 by automobile and only $4.75 on a lightweight, making faster time than when I drove the motor car over the same distance.



Among the Palms of Sunny Florida. **A Photo Which Proves That th**

On the car I averaged twelve miles an hour, as seventy-five were over bad roads, and one or two daily stoppages were made. On the motorcycle the average was fifteen miles an hour and I was able to pick my way over the bad stretches to far better average. I had no mechanical or tire troubles in either case. I contend that the extra comfort of the car can hardly represent the difference in the cost of travel. It is true that I did not take a passenger in the car when I might have taken five, but the extra weight carried would have meant more wear and tear, with the possibility of tire trouble thrown in, although the actual cost of the journey would have been divided among the driver and passengers, figuratively speaking, even though the driver footed the expense. I intend to take a twin-cylinder and side car over the same route in a month or two and expect to cover the distance at less cost *per passenger* than on the lightweight. Of course it must be remembered that the roads are none too good in my neighborhood, and this necessarily cuts down the average speed to a great degree.

* *

Sameness In Carbureter Designs.

The most extraordinary features of carbureter design may be seen by following the *new* patents. In the sectional drawings of these so-called novelties one never gets away for a moment from that stereotyped float-feed spray idea. The float feed is useful enough, no doubt, but the present form of spray nozzle has been recognized as faulty from the outset. In some experiments recently made abroad, a glass inlet tube was utilized so that the experimentalists could actually observe what was taking place. The result showed that, instead of the finely atomized spray of gasoline which we fondly believed entered the inlet valve, the gasoline was sucked up the inlet pipe in a steady stream. And, to think that during all these years, we had been talking glibly of gasoline "vapor" and had been imagining the filmy atomized miniature jet! One would wonder, after the disillusionment, what actually happened when the old surface type of carbureter was in use. It is indeed a pity that the experimentalist did not go further back in his researches. The surface carbureter was part of the tank, a pipe led upwards, terminating in the inlet pipe, generally fitted at the top of the tank to a T-piece. The air lever admitted air at one end and the throttle (of butterfly type) was fitted at the inlet pipe end. This inlet pipe led directly to the inlet valve running downwards, and was internally fitted with five or six gauzes. It hardly seems possible that any stream of gasoline was sucked up from the carbureter to the mixing pipe and then down *past* the gauzes to the inlet valve. I think that the glass inlet pipe experiment should be tried with this type, as then we would have some real light on the question.

* *

Proper Setting of the Valves.

I notice that a great many of our readers seem to be completely at sea regarding the correct setting of the valves of a motorcycle. I wish to set the question at rest somehow, for, like Tennyson's brook, it goes on forever. The inlet valve should just commence opening when the piston is ⅛ down on the suction stroke, and it ought to shut when the piston is 5/32 up the compression stroke. Again, the exhaust valve should commence to open ⅜ from the bottom of the firing stroke and should close when the piston has just reached a point slightly past the top of the exhaust stroke.

* *

FLOURISHING IN MIAMI.

A PHOTOGRAPH of part of the riders of Miami (Fla.) is printed upon this page. J. M. Harper, agent for the Harley-Davidson, Thor and Pierce, who furnished the picture, writes that business in his town is progressing very nicely. There are now about forty riders, about equally divided between the Harley-Davidson, Thor, Excelsior and Indian. There are a few R.-S. machines there, several Pioneers and a Pierce. The Miami boys are a hospitable crowd and always prepared to welcome visitors.

ami Boys Are Doing Their Share to Promote Enthusiasm In the South.

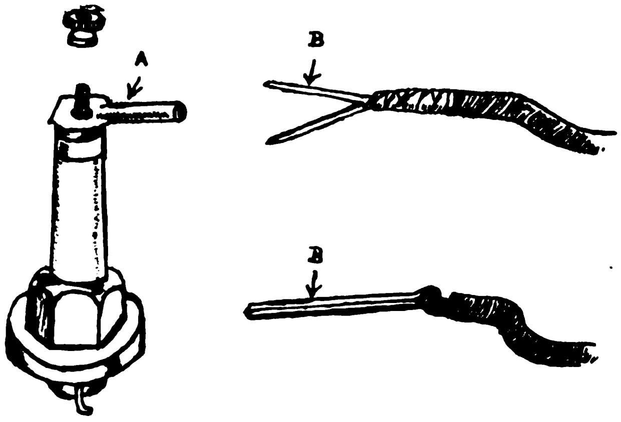
A HANDY TERMINAL CLIP

BY THE NOMAD.

MY friend the Editor saith that I draw "like unto a broken-winded mule." Yet in the face of criticism from such eminent quarters, I place before the artistic eye of the reader a charming little "impressionist study" of a handy terminal clip which costeth but a mere filing off an "iron man." The illustration shows an adaptation of the idea to a high-tension or secondary cable, but this may be used for any other form of connection on the machine. We are often perturbed in the soul when an ordinary twisted connection breaks off, in spite of the obvious fact that the very act of screwing down a terminal hard on the wire is likely to fray it or even partly break the strands, and it is not in any way surprising that, later on, excessive vibration on the weakened wire completes the damage. In the same way, some of the terminals which one buys have very weak points. If the wire is soldered into these terminals, the action of the soldering process often takes away the "life" of the stranded wire, which results in the same type of fracture, just short of the soldering point.

With a heavy cable or one swinging loose in any way it is, generally speaking, only a question of time when the wire will break off. I have also observed that the wire usually chooses an opportune moment, for example, in a rain-storm at night. Moreover, the wire either swings itself out of sight to avoid chance detection or it will pretend to be unbroken and remain innocently in place. After being fooled in this manner on several happy occasions, I tickled my thinking-float and set to work to invent some way of cheating this form of breakdown out of all the glory, so to speak. The main point was to make a terminal of some sort which would look neat and at the same time stay where it is "put."

Although my art technique is not what it used to be when I studied in the Italian school at Rome, as it were, I think that the reader will be able to follow the illustration and description herewith. "A" is a piece of copper tube, flattened at one end and having a hole drilled through the centre of the flattened portion to fit the post of the spark-plug, contact breaker or battery terminal. "B" is an ordinary split-pin which fits the tube A closely, when inserted before being split. This split pin is attached securely to the wire by its loop and well secured by a close wrapping of adhesive tape. If you open the split pin when the wire is fixed as in the illustration (exaggerated for the sake of clearness), a good, firm contact is made and, I have found from practical experience, the length of the frictional contact of the split pin in the copper tube will prevent any chance of the connection jolting loose through vibration of the motorcycle.



The Handy Terminal Clip Roughly Illustrated In the Different Roles It Plays.

An additional advantage of real merit is the easy detachability of the whole thing. The reader will see that my main reason for drawing this in conjunction with the spark-plug was that this point should be clearly evident. To test the secondary circuit as far as the spark-plug, all there is to do is to pull out the terminal and place it so that it is close enough for a spark to jump to the plug.

From this method of testing a peculiar mystery cropped up on one machine in my "stable." I had previously fitted a secondary cable "wire-carrier" on the lines of those used in some makes of automobile. This consisted of a vulcanite tube which carried the wire to the spark-plug and which was fixed to the frame tube supporting the tank. The object of fitting this was to obviate any further chance of the terminal working loose in any way, as on this particular machine the secondary wire running to the spark-plug is somewhat long and heavy and swings when the machine is running.

I happened to strike a case of bad misfiring and pulled out the split pin and, as the wire was well supported by the vulcanite "carrier," I easily placed the pin so that a spark would jump the small gap. I started to pedal the engine on the stand and, to my surprise, she ran evenly without any sign of a misfire. When I replaced the split pin in the terminal and started up, the old misfire came back as badly as ever. Out came the terminal and even running set in again.

Then I took out the spark plug for an examination and found it fouled badly with carbon deposit. I cleaned it and adjusted the points, replaced the split pin, and on restarting the machine found that the misfire had been cured. Naturally enough I looked for a solution to the mystery and at first could not see any reason why the fouled spark-plug should have fired the charge regularly only when the split pin was forming a gap for the current to jump.

In the end, I remembered that such a fitting as a "spark-gap" had once been very popular abroad. This consisted of a piece of insulating fibre and a metal terminal which was fixed on the post of the spark-plug and formed a gap just as the split pin had done. The idea was good, as the claim was that after the spark had jumped the adjustable gap, it was intensified and the spark at the plug points was "fatter." In the old days of somewhat indifferent spark-plugs, this device was undoubtedly advantageous in every way, but, I believe, as plugs were quickly improved this device soon fell into disuse. Also it may have been that, in some of these "spark-gaps," the adjustment quickly got "unput" through vibration, and so a real misfire would be obtained through the very agent designed to prevent the evil.

At any rate, whatever the reason for its discontinuance may have been, the "spark-gap" did not remain very long on the market, though there is not the slightest doubt that by its use the spark at the plug points is intensified and is thus rendered more efficient for combustion purposes. This point was easily proved by the very fact that, when I made an artificial spark-gap with the split pin, the spark-plug would fire the charge although the plug points were badly carbonized, when it would not do so without the gap in the circuit.

* *

LAWRENCE (Mass.) has a clever, up-to-date cop, of the name of Harry Nimmo, who recently distinguished himself by capturing a chicken thief by adapting his motorcycle to the chase.

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CIRCULATION THIS ISSUE...............6,300

THE PROVIDENCE CASE.

HONEST, rational and fearless criticism is admirable and always timely. Brave, logical and true men welcome it. Such criticism serves a definite and a worthy purpose; it's helpful. We all need it to stimulate us toward doing the things we ought to do, as well as to keep our hands from tasks which were better left undone. But there's nothing praiseworthy in simply finding fault and, on the other hand, there is much that is reprehensible in the tactics of those who, for motives that are mysterious and darksome, seek to indulge their personal prejudices at the expense of other folks. To attack a man simply to satisfy an individual grudge or private spite is anything but sportsmanlike and certainly far from logical. So we must again confess our utter inability to comprehend the object of the persistent attacks directed by our New York contemporary against the chairman of the F. A. M. Competition Committee. Its latest assault is worthy of attention only insofar as it discloses a series of mental operations which are truly remarkable in the very small percentage of good. sound sense which they reveal. However, let us look into the facts in the premises.

It has been demonstrated beyond all question of doubt that motorcycle racing on small tracks is a rather hazardous experiment. It is not invariably productive of serious consequences, but there's no telling when it may be. Even our contemporary has often placed itself on record to the effect that it favored every reasonable restriction to prevent racing on tracks which were not entirely fitted for that purpose. But it is not at all surprising that it should go back on its own stand, now that the present chairman of the competition committee has expressed himself as opposed to granting sanctions without some kind of assurance that the tracks for which permission to race is sought are reasonably safe. The whole matter has been thrown into the cauldron of discussion as the result of an application made by the Providence Club for a sanction to conduct a race meet on the eight-lap bicycle board track in that city. In this connection we submit some of the letters which have passed between Providence and New York. They require no extended comment; in fact, it is not our purpose to again come to the defense of the F. A. M. Competition Committee's chairman. We believe that in this particular case his attitude is not only above unfavorable criticism, but deserving of the highest commendation. His letters make it very plain that his entire purpose in originally withholding sanction was simply to prevent others from endangering their lives. In fact, he offered the Providence boys plenty of opportunities to obtain official permission on their own responsibilities. No other course is usually open, as the chairman cannot inspect every track for which a sanction is requested.

Nor were the Providence boys at fault. They cannot be blamed in the least for the disappointment to which they gave expression in the protest published herewith, as follows:

"Dr. J. P. Thornley, Chairman.
"F. A. M. Competition Committee.
"Dear Sir:—

"At a special meeting of the executive committee of the Providence Motorcycle Club, held this date, it was voted to enter a formal protest against your decision to refuse sanctions for motorcycle races on the new board track in Providence. Riders in this vicinity have been looking forward to the completion of this track for some time and some interesting racing has been expected. Several of the members of this club have been getting machines ready and practicing on the track, and all fail to see why a sanction should not be granted for motorcycle races. A section of the grandstand has been reserved for the season for members of the Providence Motorcycle Club, and much enthusiasm has been aroused. It is earnestly hoped that you will reverse your decision in this matter. You cannot expect motorcyclists to remain loyal to the F. A. M. when a season's activities are suddenly upset in this manner.

"Yours sincerely,
"F. E. Domina, Pres.,
"W. W. Scott, Sec. per F. E. D.,
"B. A. Swenson, Treas.
"Charles H. Westcott, Capt.,
"E. L. Buffington."

It is not hard to appreciate how the officers and members of the Providence Club felt, in view of the arrangements they had made for racing throughout the summer. As a matter of fact, the chairman of the competition committee is authority for the statement that he is only too anxious to receive protests when they are justified. He has no other way of ascertaining local conditions with which he is not directly acquainted. However, in answer to the protest of the Providence Club, chairman Thornley, in writing to President Domina, expressed himself to the following effect:

"Mr. F. E. Domina, Pres.,
"Providence Motorcycle Club,
"Providence, R. I.
"Dear Sir:—

"Your favor of May 18, protesting against the refusal of sanction to the local bicycle track in Providence, received and placed on file. In reply let me say that I have already wired Mr. Swenson, State Commissioner, asking for the recommendation of the Providence Motorcycle Club, stating that this track is safe and rideable. Upon receipt of such a recommendation from these gentlemen a sanction will be issued without any question. In this connection I would like to say that the only reason for refusing sanctions to small bicycle tracks is the danger involved to the riders. There is absolutely no other reason why sanctions should be refused to these tracks.

"I have a certain amount of conscience and do not wish to be responsible for the death or serious injury of any rider, and can only be governed by circumstances and reliable information furnished me.

"The recommendation of your club is all that I desire. I have not seen the track, and do not know whether it is safe or not. Your recommendation will justify me in issuing a sanction and relieve me of any adverse criticism should an accident occur.

"I trust that the Providence Motorcycle Club will realize that I am only acting in a conscientious and decent manner and for the best interests of the F. A. M. and the riders themselves.

"Very sincerely yours,
"J. P. Thornley,
"Chairman."

Later, the chairman received a sensible letter from Mr. Swenson, the well-known Providence dealer, to which Dr. Thornley replied as follows:

"Mr. B. A. Swenson,
"298 Blackstone St.,
"Providence, R. I.

"Dear Swenson:—

"Your favor of May 25 received. In reply let me say that I am enclosing a sanction permitting you and Mr. J. C. Loftes to ride exhibitions upon the local track. Or, if you see fit, to have an Australian pursuit race. As I wrote you yesterday, I am contemplating putting the question of granting sanction and the character of the events for the local board tracks in the hands of a committee composed of the presidents of the two local clubs, and one disinterested outsider. If these gentlemen will act for me, I will be inclined to take their advice about racing matters in Providence without very much question.

"As to the matter of competition certificates, I would like to say, that since the new rules have gone into effect it has not been considered necessary for me to issue competition certificates, as the secretary is supposed to furnish me with the names of all members as soon as they join. A membership card is all that is required in this particular. I fear from the number of letters that I get on this subject that this matter is poorly understood, and I beg that you will spread it around as much as possible.

"I have issued the enclosed sanction to the Providence Motorcycle Club, and shall hold them responsible for the events.

"In reference to the Dead Horse Hill Climb, I would like to say, that they have written me that they have very few entries. You would confer a favor upon me, if you would try and stir up some enthusiasm in Providence for it, as they seem to be anxious to have us.

"I am sorry to have to disagree with you and your friend and others, regarding the comparative safety of half mile and eight-lap board tracks. There is no track upon which there will not be accidents from time to time, particularly if inexperienced riders compete. I can only say that on the half-mile dirt track, which is not a particularly good one, at Olympic Park, Newark, there was not a single fatal or particularly serious accident all last year. In my opinion it is not so much the dimensions of the track that count, but it is the continued quick succession of straightaway and turn, and then turn and straightaway, which is likely to confuse the inexperienced rider and cause accidents. A perfectly circular eight-lap track, properly banked, may be safe enough for practical purposes, although I prefer a larger track. If a man is going fifty or sixty miles an hour on a dirt track, and falls or skids, he has some chance of getting off with a whole skin unless he goes through the fence and hits a post. On a board track, if he makes any mistake, the chances are one hundred to one he will go over the top, taking the spectators, posts, and everything else with him to the ground below. If he is not killed or seriously injured it is because he is lucky, and not because the conditions are such as would help him or save him.

"Very sincerely yours,
"J. P. Thornley,
"Chairman."

It seems to us that as far as the Chairman of the Competition Committee is concerned, he ought to observe the principle that it is better to err on the side of conservatism than otherwise. Among the objects of the organization of the F. A. M. is the regulation of the sport in such a way as to reduce to a minimum the number of track accidents. Every fatality hurts motorcycling, and it is undoubtedly the duty of the Competition Committee's Chairman to keep this fact in mind whenever called upon to consider applications for racing sanctions. In fact, even though the Providence boys may have had no intention of taking any wild chances, it must be plain that there can be only one side to a question which has to do with the personal safety of the riders themselves. Even those who expressed their disappointment must have appreciated that Dr. Thornley had no other motives than the best interests of the sport and their own welfare. To criticise an official actuated by motives so deserving and to deliberately seek, under such circumstances, to make trouble between the F. A. M. and the N. C. A., is nothing less than despicable. It is quite possible that the Providence track is safe, but why blame Chairman Thornley for having tried to make sure of the fact?

COLORADO TO MASSACHUSETTS IN 18 DAYS.

GEO. H. BABB, of Denver, Colo., claims to have established a record for the distance between his home town and Clinton, Mass. Babb, who rides a Merkel, is authority for the statement that he reached his destination after a journey which occupied only eighteen days. He started from Denver the latter part of April and rode East by way of Omaha, Chicago, Detroit, Cleveland, Buffalo, Albany and Worcester. He stopped for some time in Norton (Kans.) and also at Chicago, thus reducing his actual running time to sixteen days. His longest day's run was 222 miles.

* *

CHIEF WANTS MORE MOTORCOPS.

CHIEF STEWART of Chicago wants a squad of one hundred motorcycle cops with a special captain. His motor force, limited as it is, has done such excellent work during the past two months that the chief feels that he could revolutionize the situation by quadrupling the present number of motorcycle police.

MOTORCOP CAPTURES WOULD-BE MURDERER.

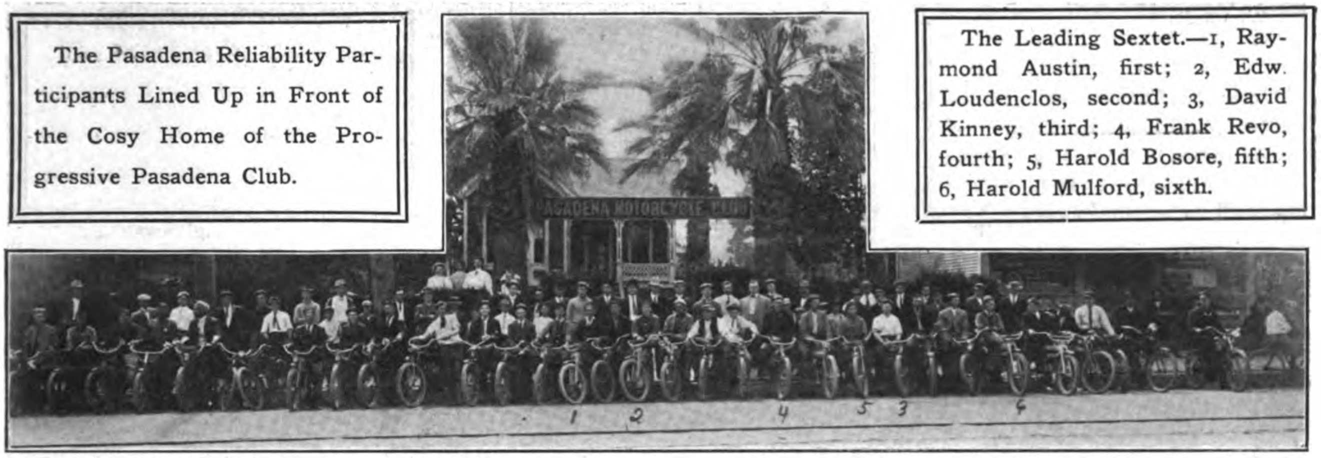
JOSEPH GAUL, of Canton, O., flourishing a revolver, rushed upon his family the other morning, according to the police, and told them to prepare to die. Terrified, they barricaded themselves behind the doorway and resisted his efforts to gain entrance. A 'phone call for the police brought Motor Policeman Riffle on his R-S motorcycle to the scene. Gaul dropped his revolver and began a headlong flight, with the motor policeman in pursuit. Gaul was caught after a short chase.

* *

LEON JENKINS and Ben Wilson, both of Miami, Fla., are on their way to Europe with a view to touring the Continent on their machines. Jenkins rides a 1910 battery twin Indian and Wilson a single Harley-Davidson.

* *

SPOKANE (Wash.), now has an ordinance providing that motorcycle riders pay a license fee of $2 per annum, that machines must not be operated at a speed exceeding 12 miles an hour, and that they must be fitted with adequate horn and brake.



The Pasadena Reliability Participants Lined Up in Front of the Cosy Home of the Progressive Pasadena Club.

The Leading Sextet.—1, Raymond Austin, first; 2, Edw. Loudenclos, second; 3, David Kinney, third; 4, Frank Revo, fourth; 5, Harold Bosore, fifth; 6, Harold Mulford, sixth.

RAYMOND AUSTIN, who rode an Excelsior, captured first prize in the second annual reliability run of the Pasadena, Cal., Motorcycle Club. Edward Loudenclos, also on an Excelsior, was second, and David Kinney, on an Indian, third. However, the highest average was scored by the riders of Yale machines, with 831 points as against 717½ points for the Harley-Davidson, 617 points for the Excelsior, 495 points for the Indian and 245 points for the R-S. The route was through the Arroye Seco over the Eagle Rock Pass, having an average grade of ten per cent., and then through Eagle Rock, Tropico, Glendale and Burbank. The next stage of the journey took the competitors over twelve miles of good roads to Chatsworth Park, where they came upon a grade of twelve to sixteen per cent., with many turns and plenty of sand, which proved the undoing of a number of riders. The next control was Simi, from which place to Ventura, 33 miles away, the going was fairly satisfactory. The last part of the trip included Mora Park, Camarilla, Elrio and Monta Vale. The distance was 200 miles and the schedule called for 25 miles per hour. Points were scored as follows:

Raymond Austin (Excelsior), 971; Ed. Loudenclos (Excelsior), 959½; David Kinney (Indian), 947; Frank Revo (Indian), 941; C. H. Bassore (Excelsior), 938; Harold Mulford (Excelsior), 930½; Henry Schaefer (Yale), 861; Will Graves (Yale), 830; George Embree (R-S), 818; Roy Seymour (Yale), 800½; V. Dill (Harley-Davidson), 717½; Archie Sparks (R-S), 649; Joe Margadant (Indian), 577; Guy Henry (Excelsior), 384; C. Burnham (Indian), 316; W. Reed (Indian), 189½; Clyde Cook (R-S), 125; M. Baker (R-S), 125.

A SPECIAL meeting of the Jacksonville Club was held a few nights ago in the offices of the McGraw Bros. & Voigt Company. It was largely attended and was one of the most enthusiastic meetings ever held by the club. The meeting was called in order to elect new officers, and also to take action on joining the Atlantic-Pablo Beach celebration, which will be held on the Fourth of July. D. S. McGraw and Ray E. Reed were elected president and secretary, respectively, to fill the vacancies caused by the resignations of J. H. Yerkes and L. L'Engle.

J. E. McGraw, who is a member of the racing committee of the club, proposed that the club make arrangements to take part in the celebration, that the members enter the races at the beach, and that invitations be extended to the motorcycle clubs of Atlanta, Savannah, Tampa, Augusta and Miami, and that they entertain them at a dinner at the Hotel Continental.

* *

EIGHTEEN constitutes the present membership of the Grand Rapids Motorcycle Club, with Arthur Rosenthal as president, Joe Poisson as secretary, and R. O. Chipman road captain. Several members of the club went to Chicago on Sunday to attend the races on the Hawthorne track. The club also conducted two races in connection with the Western Michigan Bicycle Club's Field Day on Monday. There was a five mile match race for a cup donated by the Hendee Company. R. O. Chipman was referee.

* *

MEMBERS of the Panther City Club, of Fort Worth, Tex., have become so enthusiastic that they have decided to hold weekly meetings instead of semi-monthly sessions as heretofore. The club members are looking forward with much interest to a run which will be held the latter part of May, starting from Fort Worth and ending at Dallas.

BURCHELL UPSON, of Sacramento, and Lee Scott, of Stanford University, are to tour Europe, Northern Africa, Southwestern Asia and perhaps the Far East on motorcycles. Both men are members of the Senior Class at Stanford and will be graduated this year. Upson and Scott left California for New York on the twenty-fifth, and from there will go to Cork, Ireland. In Cork they will mount their machines and skim over the Emerald Isle, crossing to Scotland. From the land of the bonnie Highlander they will run into England and then cross the Channel to France. The run through France will be made down the west coast to the Mediterranean, where Spain, Italy, Greece, Turkey and Egypt will be visited successively. If the roads are in good condition the young men will continue their journey into the more interesting parts of Asia. They intend being gone eight months.

* *

THE Summer Meeting of the Eastern District, Federation of American Motorcyclists, will be held at 734 Main Street, Hartford, Conn., Saturday, June 4th, at 8 p. m. The session is called for the nomination of a candidate for District Vice-President; to receive reports of the State Commissioners, and to transact any other business that may legally come before the meeting.

* *

AT a recent meeting of the Yale Club of Baltimore seven members were admitted. Among them is included "Ed" Allard, popularly known as "Pop" Allard. By the unanimous vote of the club Mr. Allard was elected captain.

* *

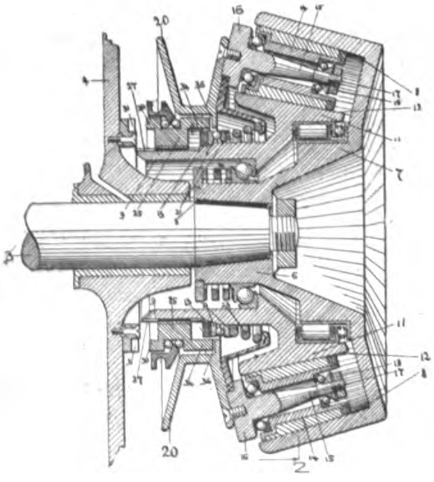
ARTICLES of incorporation have been filed by the Hartford Club. The incorporators are F. Meunier, L. G. Wilcox, Charles N. Smith, George S. Maslin, B. Biederman and A. E. Brown.

Los Angeles Club Members Resting at a Ford in Topanga Canyon.

A NEW PLANETARY FREE ENGINE AND TWO-SPEED GEAR

THE accompanying cut shows a view of the Tabler two-speed mechanism and free engine device invented by Charles F. Tabler, Boston, Mass. The principal objects of the invention are to produce a planetary drive that is self-adjusting; to prevent the back-lash which is found in certain planet-gears after short use; to lengthen the term of service by lessening the wear on the gears, and to provide a drive which is highly efficient and absolutely noiseless while in use.

Referring to the cut, the motor shaft 3 extending through the crank-case 4 has rigidly keyed to it at 5 the hub 6 of the driving drum 7, from which extends a flange 8, the inner surface of which is beveled toward the main portion of the drum. Parts 6, 7 and 8 are integral. No. 9 is a sleeve adapted to rotate on the ball bearing of hub 6 and the roller bearing on drum 7. The outer surface of the portion 11 of this sleeve is beveled at 12, thus forming a cone. The beveled surface 12 flares somewhat with relation to the inner surface of flange 8, the surface of the two portions 11 and 8 constituting inner and outer cones, flaring rearward from drum 7. At 13 the sleeve 9 is threaded to receive the thrust bearing 21 for spiral spring 23 for the purpose below described.



Within the annular space between the cones 11 and 8, six tubular, conical-shaped friction-rollers 14 (two only being shown in the cut) are mounted upon antifriction bearings on the arms 15 of spider 16, to which the V pulley is attached, and rotate planetarily in frictional contact with cones 11 and 8 under tension of spring 23. These rollers have a thick surface of papier-mache, leather or any other suitable material, made up of washers and forced together by a nut. (See cut.) The spider 16 with V pulley 20 (or sprocket if chain drive is desired) which transmits the power does not have its bearing on sleeve 9, but simply surrounds it as illustrated. A ring 25 on sleeve 9, prevented from relative movement by keys, is adapted to slide longitudinally in the slots of said sleeve by means of a lever. This ring 25 is a clutch member and is provided with teeth and notches 30 and 34, to engage into the stationary portion at 31 or in the belt pulley 20 at 30.

Slow speed is attained by engaging the clutch member 25 into the stationary portion at 31, thus holding the cone 11 from turning. Shaft 3 and cone 8 turn in their usual direction, and through the frictional contact of rollers 14 cause the spider 16 with pulley 20 to rotate in the same direction, but at a greatly reduced speed.

High speed is attained by engaging the clutch member 25 into the belt pulley at 35, thus locking the cone 11 to the spider and so preventing planetary movement of the rollers 14.

Slightly withdrawing the spider 16 from the drum 7 disengages roller 14 from frictional contact on cone 8 and allows the engine to run idle. The device is self-contained, and by removing one nut at the end of the shaft 3 can be taken off for inspection as easy as an ordinary plain pulley.

* *

THE first motorcycle mail route in Mexico outside of Mexico City will probably be established over the new highway between Iguala and Chilsancinga.

RUNS THAT ARE RUNS.

PROBABLY the Los Angeles Club has made more regular road runs than any other motorcycle club in this country, as the rule with this big California club is to hold a run every other Sunday and on the holidays. On these runs there are sometimes as many as 250 machines, and one run last year brought out 500 riders. The wives of many of the members are regular attendants on these runs, riding tandem with their husbands.

About Los Angeles to the north, east and south are mountains, while on the west are fourteen beach resorts, and with the eight months of summer and no rain these runs can be assured months ahead. Sometimes the riders are spurred on by ribbon contests, but usually the sightseeing, pleasant company and the lunch or dinner are attractions enough. The old standbys are seen on each run, and a number of the married members are always there with their wives. These runs are also conducive to matrimony among the others.

When the club is in doubt as to routes, the president or captain calls on Charles Fuller Gates, one of the charter members, who is considered the best-posted man on the coast when it comes to roads, mountain canyons and runs, for he has mapped all the southern part of the big State for bicyclists and later for the motorists, and is the originator of the "mission bell" monuments that mark the 700-mile-long El Camino Real that connects the old missions, landmarks that are always interesting to the tourists. Mr. Gates also originated and installed the emblematic road signs which now mark all the main roads of southern California, covering more than 3,000 miles.

* *

EXPLOSIONS IN CARBURETER OR INLET PIPE.

MAY be caused by (1) defective inlet valve spring; (2) inlet valve not closing properly; (3) leaking valves; (4) lean gas mixture; (5) spark too far retarded; (6) valves incorrectly timed.

* *

SQUEAKS AND THEIR PROBABLE CAUSES.

BRAKES may be partly set; (2) lack of proper lubrication at friction surfaces.

ANOTHER MOTOR-NIMROD.

ROBERT KRAUSE, whose photograph appears above, has come East from Globe, Arizona, over the sandy and hilly roads of which he has often made use of his Excelsior when a-hunting. He declares that the machine of which he is the proud proprietor is capable of almost everything. It has been put to many a severe test in the "desert State," but always found qualified to meet the most arduous requirements.

* *

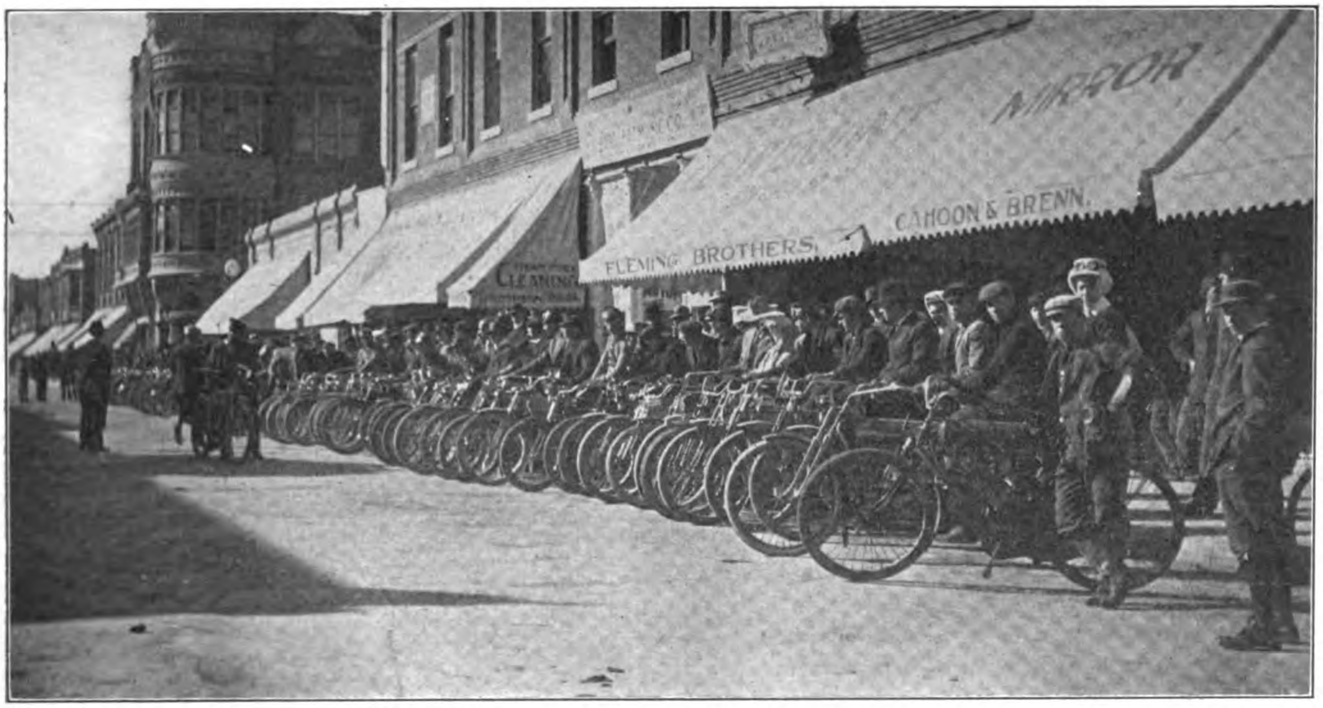
EXPLOSIONS IN MUFFLER.

MAY be caused by (1) cylinder missing fire and pumping explosive charges into silencer, which ignite from heat of next exhausted charge; (2) exhaust valve stuck or does not seat properly; (3) gas mixture too weak to fire in cylinder; (4) inefficient spark; (5) over-retarded spark.

* *

EXHAUST PIPE BECOMES RED HOT.

MAY be caused by (1) clogged silencer; (2) driving with exhaust throttled; (3) driving with retarded spark; (4) using low gear too much.



Los Angeles Club Members Halting for Dinner After a Morning Run.

WITH THE CLUBS

WE are sending you a picture of a part of our club taken after we had made some twenty miles and then sat down under the shade of a large pepper tree and disposed of a light lunch ending with plenty of ice-cream. The lunch was of course provided by the club, and even though we had prepared for seventy-five the entire deck was clear when our boys quit.

The R. M. C. has been growing ever since it was organized two years ago, and although there is plenty of room yet to grow we are leaving no chance slip by to make our club a larger and better body, for our climate here permits us to use our machines almost every day in the year, and with our many miles of good roads to travel over we are able to make a run nearly every Sunday. Sometimes we ride over to the San Bernardino mountains, fourteen miles away, and, leaving our machines at the foot of the trail, we proceed to climb to the top, a tramp of over twelve miles. Then again we are able to reach the ocean by traveling down the Santa Ana canyon and along the river of the same name, with its many shady spots to rest if the sun gets a bit uncomfortable before the whole distance of fifty-four miles is covered. We believe it would be hard to find conditions better adapted to motorcycle touring.

We believe in living up to our motto, "Good Roads," and we have taken means to bring to the notice of the proper persons the work we would have done and are in a fair way to see accomplished. A fund for repairing the Box Springs grade was recently started by the Club at a meeting at which we voted $25 for the purpose as a start in the direction of something whose atttainment is very much desired by the traveling public. There was a large attendance of the members and they listened to the report of the financial conditions of the district in which this grade lies by County Supervisor Karl Carlton, who represents the district on the county board.

Our membership is now over sixty. We always have a good proportion present at our meetings and on our runs, and the interest in the club "doings" is never lacking. With the new models coming in the boys of Riverside are buying only the best and most powerful makes. Our officers are: E. J. Knoll, president; P. F. Wilson, vice-president; L. E. Davis, captain; A. W. Brown, first lieutenant; R. L. Curtis, second lieutenant; L. Bamberger, secretary and treasurer.

Riverside Motorcycle Club.
L. BAMBERGER, Secretary.

A Group of Riverside, Cal., Club Members.

JOSEPH HOLLE, the "bike doctor," San Francisco, has forwarded the following recital of Pacific Coast doings:

The San Francisco Club held its opening run for the season to Woodside, Sunday, May 1, and a large number attended, including several ladies. A most enjoyable day was spent picnicking, playing games and doing some real hill climbing.

The fastest riders of the club, including Collins and Balke, participated in the races held May 7 and 8 at San Francisco. The club riders also participated in the races which took place at the San Rosa Rose Carnival May 13, 14, 15 and 16.

It has been reported to the club from good authority that Jack Prince, of Los Angeles, has closed a deal on a tract of land at Fruitvale, where he will build one of the finest half-mile saucer tracks in the world. The climate there is ideal for racing. Arrangements have been made by the club to hold a race meet at Concord in the near future, and the much talked of and long delayed match race of 150 miles between Collins and Kohl will probably take place at that time.

The club has received several communications from Messrs. Davis and Sorensen, the two members who left about three months ago on a trip to New Orleans. When they got as far as Galveston, Texas, Davis decided to go to New York, but Sorensen went on towards New Orleans. They report that the hotel men and dealers in oil and gasoline overcharge in a great many instances, they having been "taxed" as high as 50c. a gallon for poor grade gasoline and $1.50 to put their wheels in a garage overnight. And then the roads! And riding railroad ties! One trip of this sort may be depended upon to satisfy the average man's longing for an absorbingly exciting experience.

PLAN BIG MOTOR CLUB.

INDIANAPOLIS motorists—motorcyclists and automobilists alike—are plugging for one of the biggest motor clubs in the country. It is to be known as the Indianapolis Auto and Aero Club, and the membership mark is set at one thousand. Anyone may join, whether he owns a motorcycle, aeroplane or automobile or not. Carl G. Fisher, of the Indianapolis Motor Speedway, has agreed to build a $15,000 club house at the speedway grounds as soon as 1,000 members have been obtained. All members will be permitted to use the Speedway for pleasure driving, and will also be admitted free to all Speedway events.

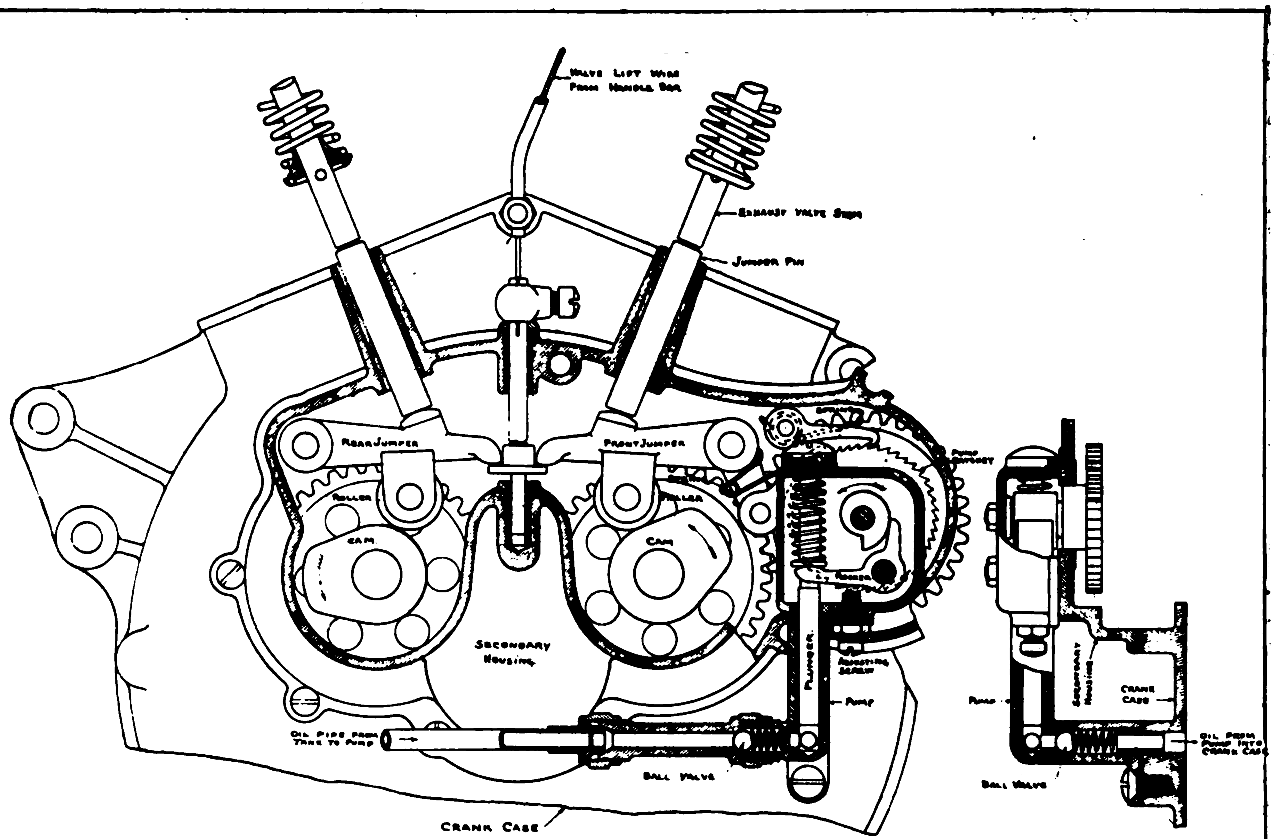
* *

H. S. RICHARDS is president of the newly organized Kansas City Club, which held its organization meeting at the Sellers & Berry Shop, 1207 McGee street. H. E. Hurt is vice-president, F. A. Wall, secretary, and H. M. Bingham, treasurer.

* *

LACROSSE (Wis), has a new club, the members of which have elected F. Munn as president; W. Streitz, vice-president; W. Hilton, secretary; Otto Gudenschwager, treasurer and lieutenant of runs, and M. Hilton, captain.

MERKEL-LIGHT AUTOMATIC OILER GRAPHICALLY DESCRIBED



MERKEL-LIGHT AUTOMATIC OIL PUMP AND VALVE MECHANISM

THE accompanying sketch shows the method of attachment and simplicity of construction and operation of the "Merkel" automatic force feed oil pumps, as well as illustrating the way in which the valves are operated. It can be seen that two separate cams and gears are used, which permits greater accuracy in the opening and closing of the exhaust valves. The cams and shafts are made from a solid bar of tool steel hardened and ground to size, and the secondary gears from separate forgings keyed upon the exhaust cam shaft. The cam shafts are supported by bearings of large dimensions on both ends, the inside bushing being in the crank case and the outside in the secondary housing. The gear at the extreme right and shown behind the mechanical oil pump is the idler gear, which in turn drives the gear operating the magneto. The idler gear is mounted on an F. & S. annular ball bearing, which assists in accuracy of running and will last indefinitely.

The pump ratchet and cam are made integral of a solid piece of steel, the cam being the hub of the ratchet wheel and is drilled through the center, which permits it being mounted on a shaft which, while passing through the ball bearing of the idler gear shown behind the ratchet, is so arranged that the ratchet cam and wheel rotate independently of any of the gears.

As the exhaust cam raises the front valve jumper, the lever-like projection on the opposite end upon which is attached the pawl operating the pump ratchet is moved back a sufficient distance to rotate the pump ratchet one tooth. The single upper pawl, mounted independently, prevents the ratchet wheel rotating in the opposite direction, insuring the movement of it always one tooth forward.

The ratchet wheel makes one complete revolution every 43 times the exhaust valve is lifted, and as the valve jumper and exhaust cam are operated through the secondary gears, the pump really injects a charge of fresh lubricating oil into the engine crank case every 86 revolutions of the motor. The method of adjusting the quantity of oil pumped is accomplished by regulating the stroke of the plunger of the pump.

Note the adjusting screw directly under the pump rocker; by backing this away it permits the plunger its full downward stroke, and by turning the adjusting screw up the rocker resting upon the end prevents the pump plunger from acting to the full limit of its stroke, in accordance to the distance the adjusting screw is raised.

Each time the exhaust cam raises the front jumper the pawl attached moves the ratchet wheel one tooth, which in turn rotates the cam in the direction as shown by arrow point. When the cam revolves to a point so that the short end of the rocker reaches its highest point, the shape of the cam is such that it permits the spring on the upper end of the plunger to force same downward, which injects the oil into the crank case.

On the upward stroke of the plunger the ball valve shown on the front view opens, which permits the pump to draw its supply of oil from the pipe connecting the oil reservoir; during the upward stroke of the plunger the ball valve shown in the side view closes. On the downward stroke of the plunger the action of the ball valves is reversed, so that the one from the tank supply closes and that from the motor base opens.

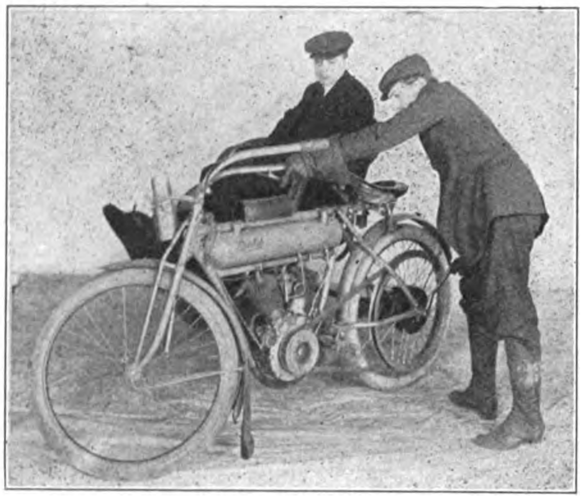
When the proper adjustment of the pump is once determined, so as to feed a sufficient amount of oil to maintain the height of oil in the crank case constant, no further attention is required and the motor can be operated continuously.

Mode of Operation of K & R Conversion Sets

IN this, the motorcyclist's "two-speed age," keen interest is manifested everywhere in every device which makes for comfort and ease of control and gives the rider a dependable free engine and two-speed gear. This year has witnesses the introduction of many forms of these devices, discussed in these columns—most of them of the "engine type," that is, mounted on the engine shaft. In describing the "K & R" two-speed gear the average reader will be impressed with the originality of the device itself as well as its application and control. To those who have, however, kept up with foreign two-speed gears of various makes or who have had personal experiences with them, it will be immediately apparent that there exists a strong similarity between the K & R system and the "Roc" two-speed gear of English make, a device which has been on the market many years, is popular and in great demand among foreign riders.

The term "conversion set," as applied to the K & R, includes ail the parts as supplied for the conversion of a motorcycle from the single speed to the two-speed drive; it is, in reality, a conversion from one distinct type to another and consists of a complete new rear hub laced up to road and pulley wheels, hangers, foot levers, rods, brakes and connections. The changes required in an ordinary machine are slight, and K & R conversion sets are now being attached by local repairmen with facility and success; in fact, the makers report that over fifty per cent of the sales are to riders who have the sets put on under their direction by local repairmen. Space does not permit of a detailed account of these changes, which are fully set forth in the company's catalog, which may be obtained by any one interested.

It may be stated first that the K & R system does away with pedals entirely. A foot rest is employed in its stead, and those who are accustomed to "pedaling home" when out of gasoline, will be deprived of that pleasure if their machines are equipped with the K & R set. The motor is cranked to start, through the medium of the rear wheel, which has a lug attached. Cranking is affected from the left, or drive side, through the gears by turning the axle backwards. For extremely stiff, heavy twin engines the gear is locked on high position and cranked forward on the stand. The sets thus far have been applied to and are running on Excelsiors, Harley-Davidsons, Merkels, Mitchells, Auto-Bi's, Indians, Puegeots, N. S. U.'s, Curtisses, Eries, Crouches, M.-M.'s, Bradleys', Simplexes, Wagners, Thiems and others, including the heaviest twins of all classes. A correct understanding of the action of the foot-levers, rods and cone may be had by referring to the cuts of the gear in various positions. The photographs are taken from a conversion set which was applied to a machine over two years ago.



Figures 1 and 2 show the positions of the foot-levers when the set is in normal or high gear, viz., direct drive to the engine. It will be seen that the two levers, called the combination lever when spoken of together, are up. They are held in position by the action of the spring on the high gear rod. A rear view is shown in Figure 2, where the cone is seen out away from the drum, the clutch arm is drawn down by the clutch arm spring and the high gear expansion clutch inside the main wheel shell is expanded, locking the pulley wheel to the road wheel through the medium of the axle gear. In this position, all parts revolve together.

Figure 3 is a side view of the foot lever arrangement, showing position when in free engine. The high gear pedal of the combination lever is pushed down and is locked in place by the heel of the low gear pedal, which holds it in place until relieved by a touch of the toe on the low gear pedal. It is apparent that the position of the cone has changed, having been thrown in as far as it will go toward the drum, thus raising the clutch arm, turning the spreader pin and releasing the expanding clutch. Thus the pulley wheel is allowed to revolve free while the road wheel stands still, the axle turning backward. The cone position appears in Figure 4.

While the gear is still in free engine position low gear is obtained by holding the axle (which has been revolving backward as shown), this being accomplished by clamping the low gear band brake on the drum, which is keyed to the axle. Pressing down quickly on the low gear pedal of the combination lever (see Fig. 5) will produce the desired effect and accelerate the machine, the pulley wheel revolving twice to the road wheels' once. The cone is still in the same position as it is shown in free engine (Figure 4).

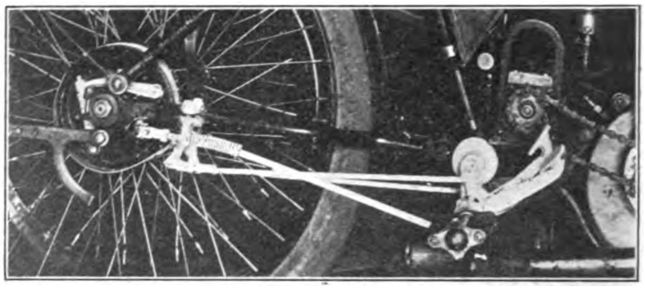


Fig. 1.—Side view of foot lever and rods. The combination lever is raised and retains its position through the action of the high gear rod spring. Fig. 2 shows a rear view of the parts when foot levers are in this position.

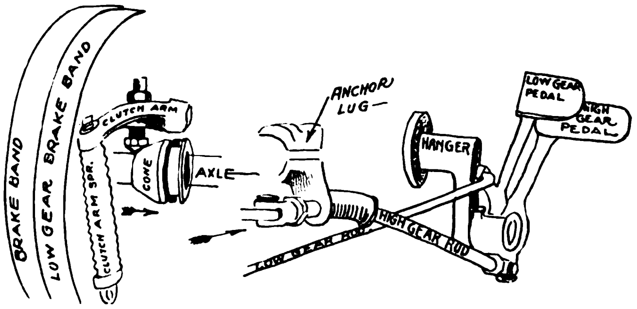


Fig. 2—The cone is out and the clutch arm drawn down toward the axle, expanding the clutch.

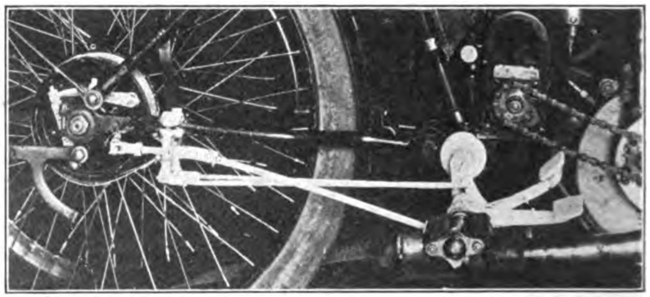


Fig. 3—A side view of levers and rods as they are when in free engine position. The high gear pedal is thrown down until it is locked in position by the heel of low gear pedal engaging lever stop. When the high gear pedal is pushed down, through the high gear rod and cone lever action, the cone is forced *in*, raising the arm (see Fig. 4) and relieving the clutch. The pulley wheel will now travel free and the axle turn backwards.

Figure 6 illustrates the K & R band brake lever, which is mounted on the left side of the machine and is within easy reach of the toe of the rider. The brake lever transmits its leverage to the brake band by a cross-over under the hanger, and from thence by brake rod to the hub.

Lack of space forbids a minute description of every part, but the reader's attention is called to the manner of applying the K & R hangers as well as the rear fork ends, both of which show up plainly in the photographs.

The simplicity and perfect ease of control of the K & R two-speed gear can be appreciated only by a user, who, once "converted," is not likely to return to the straight drive.

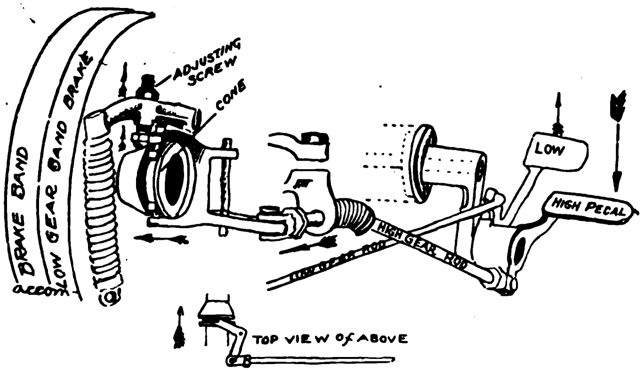


Fig. 4—Rear view of mechanism shown in Fig. 3. Note position of cone.

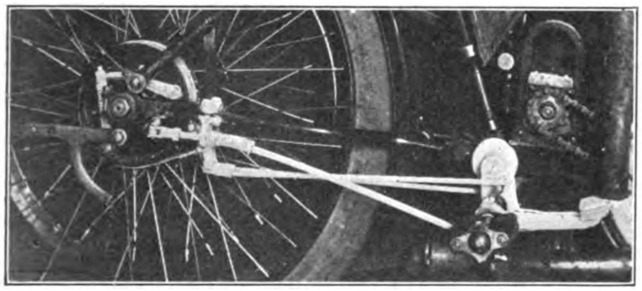


Fig. 5—A side view of low gear position. Note that the high gear pedal is in the same position as in free engine (Figs. 3 and 4) and that the cone is in. Low gear is obtained by holding the axle stationary when hub is in free engine position. This is accomplished by pushing down on the low gear pedal of the combination lever and holding it, thus clamping the drum which is keyed to the axle.

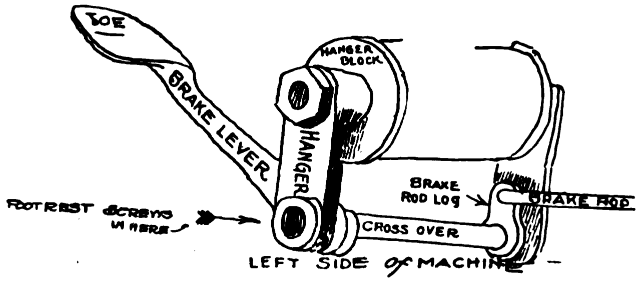


Fig. 6—The brake lever is on the left hand side (under the toe). The brake rod is swung between the K & R hangers, as shown in this cut. Brakes are lined with Raybestos and are very efficient.

Pacific Coast Freight Rates Lowered.

WASHINGTON.—In a decision published a few days ago, the Interstate Commerce Commission ordered a reduction to be made in the rate on motorcycles from certain points in the East and Middle West to the Pacific Coast terminals. The new rates are not to exceed those charged on articles classified under the Western classification to take one and one-half times first-class rates.

These rates are to apply to the transportation of motorcycles in less than carload quantities, boxed or crated, from Springfield, Mass., Hammondsport and Angola, N. Y.; Reading, Pa.; Geneseo, Chicago and Aurora, Ill.; Milwaukee, Wis., and Minneapolis, Minn., to San Francisco, Cal., and other Pacific Coast terminal points.

F. B. GRIMSHAW, Julia M. Grimshaw, Margaret Ware, H. P. Walters and A. L. Walters are the incorporators of the Motorcycle Hanger Company of Los Angeles. The concern is capitalized at $25,000.

RHODES IN NEW QUARTERS.

W. G. RHODES, R-S. agent in Philadelphia, is moving into a fine new store at 2208-2210 North Broad street. He contemplates doing business on a larger scale, especially in motor delivery vans, which have given excellent service to the large corporations using them in Philadelphia and suburban towns. He will have nearly three times the room in the new store, and will be able to make a fine display of bicycles and motorcycles and carry a complete line of accessories, etc. Mr. Rhodes, who is chairman of the F. A. M. meet's racing committee, announces that he will be very pleased to see any members of the F. A. M. when visiting Philadelphia, at his new store, and he hopes that all his friends and business acquaintances will avail themselves of this invitation.

Still Room for a Good Muffler.

THAT there is a wide scope for inventors in the production of an efficient system of silencing gasoline engines with the absorption of but a minimum of power in the operation, is well born out by the following tests made recently. The tests were made at 1,000, 1,250 and 1,500 revolutions per minute with an automobile rated at 36 hp.

First, both the exhaust pipes and muffler were removed, the engine exhausting directly into the air. Secondly, the tests were made with the exhaust pipes fitted, but no silencer, and thirdly, with the silencer fitted as well. The result proved that in the system of exhaust pipes alone, from 1½-h. to 3½-h. was absorbed, while with the complete silencing system in operation the loss of effective horsepower was, at 1,500 revolutions, nearly 11-h., or close on to 30 per cent. of the power developed by the engine. The engine, at 1,500 revolutions, exhausting into the air, worked out at 36-h., which was reduced by the silencing system to 25.3-h.

Will Light the Way to the Coast.

T. M. DUNHAM, sales manager of the Twentieth Century Manufacturing Company, makers of the Twentieth Century lamp, is soon to leave New York for an extended trip to the Pacific Coast. He will start westward the latter part of June, and will be gone until the middle of August. Later on, from November 1 to the middle of December, Mr. Dunham will thoroughly cover the territory this side of the Mississippi.

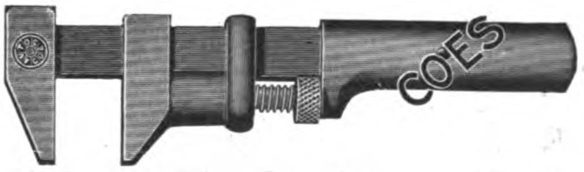
Incidentally, note may be made of the fact that the popularity of the Twentieth Century lamp is growing at a marvelously rapid rate. This year's sales have already broken the company's previous record.

Western Trip Very Encouraging.

HARRY D. SPANGLER, of the S. D. Mfg. Company, makers of the S. D. shaft-driven single, at 155 Ridgewood avenue, Brooklyn, N. Y., has just completed a tour of the West, going as far as Nebraska. He reports a very satisfactory experience both in respect to the general demand for machines and the character of the sentiment toward the departures embodied in the S. D. This company is demonstrating to those who were in doubt that the specifications of their machine are along entirely practical and altogether deserving lines. The S. D. folks are willing to place themselves on record as confidently of the belief that the shaft-driven single will develop big selling possibilities.

The R-S 1910 Catalogue.

INTELLIGENTLY edited, typographically attractive and convincing in the number and quality of R-S arguments, the Reading Standard Company's 1910 catalogue is interesting from cover to cover. Advertising Manager C. A. Mariani is to be congratulated upon the result of his labors, a credit to himself and to the concern and machine which he represents. All the R-S features are described and illustrated in a fashion sure to produce conviction in the minds of those who may have any doubt on the score of the reliability and up-to-dateness of 1910 models, of which there are four, as follows: 3 h. single, 4 h. single, and 6 and 7 h. twins. The catalogue also describes the R-S rear extension saddle attachments, convertible side and fore cars and delivery vans, tandem attachments and luggage carriers, also the free engine and two-speed devices which are fitted to R-S machines at the purchaser's option.



Coes Motorcyle Wrench.

QUESTIONS AND ANSWERS

Overheating of Multi-Cylinder Machines.

L. J. DUTCHER, Haven, Kan.—The habit of rear cylinders in multi-cylinder machines overheating has been practically cured. As a matter of fact, the modern motorcycle is so constructed that the overheating problem need not bother any rider who takes reasonable care of his mount and its engine. Several of the leading makes of machines have been operated for hours under conditions which would seem to exclude any possibility of their being properly cooled. Yet, despite these arduous tests, no injury has been done to the engines thus tried out.

The cylinders of all twin motorcycles manufactured in this country, with one exception, the new Marathon, are set at an angle of from 45 to 90 degrees. The three four-cylinder machines used in the United States, the Pierce, F. N. and Peugeot, are all shaft driven and have their cylinders set in line. Again, with the exception of the Marathon, all American-made machines are fitted with engines of the four-cycle type. The two-cycle, however, has been applied to foreign models with more or less success, although the experiment has not yet been sufficiently tried out to prove that the two-cycle is superior to or even the equal of the four-cycle plan when adapted to the motor-driven two-wheeler.

You will require more gasoline to run a mile a minute than to make the same distance in five minutes.

List of Spare Parts.

KINDLY give a list of the spare parts most likely to be needed with a 4 h. magneto belt-drive machine for a season's use, probably 4,000 or 5,000 miles. I am 25 miles from any motorcycle repair shop and must therefore rely upon my own equipment.

Would you advise a gear of 5 to 1 on a 4 h. machine on ordinary hills, the roads being rather rough, with a 160-pound rider and 15 to 20 pounds of luggage? FRANK E. BLAKESLEE.

New Milford, Pa.

Under the circumstances you describe, your equipment should include at least the following: Spare spark plugs, butt end tube, roll of tape, tire repair outfit, tire pump, small cold chisel, small smooth and flat files, small hammer, jeweler's silk file, adjustable pliers, intake and exhaust valve springs and yokes, screw driver, belt punch and belt fasteners, together with an extra belt, nuts and washers, extra insulated wire, etc.

At home you ought to have a ball pein hammer, large wrench, also socket wrenches and spanners, files and, if possible, a bench vise with four or five-inch jaw.

A gear of 5 to 1 or 5½ to 1 would meet all your requirements.

B. RAPIER, Globe, Ariz.—We have never heard of any machine called the "French." It seems that you have omitted a word from your letter. There is a machine having a French engine manufactured in this country. It is called the Peugeot and is made by C. F. Fulmer, of Plainfield, New Jersey.

BEN A. AMES, Port Deposit, Md.—A carrier suitable for the machine you describe may be obtained from the Hendee Manufacturing Company or any of its agents, also from the Majestic Manufacturing Company of Worcester, Mass.

A New England Militia Motor Scout.

A Lubricating Problem.

WILLIAM S. HEINEN, Milton, Pa.—As a basic principle it is preferable that a motor should be over-lubricated rather than under-lubricated. Again, all motors vary in the amount of oil they use. In other words, two motors may be identically alike and may be made from pieces which have the same dimensions throughout to within a couple of thousandths of an inch, and yet the one will oil profusely and the other moderately. We believe that you are using an excessive amount of oil. A certain amount of oil is bound to stay in the ducts and to a slight extent at the bearings after the machine you mention has stopped. While it is running, however, there is a continuous flow and all the oil that is not burned up or distributed goes back into the crank case. If you cannot see how much oil you have in your case through the window you might put a strip of aluminum back of the window so that the oil will rise up along side of it and show against the lighter color of the aluminum sheet. A small mirror will serve the same purpose.

Has a Motor-Driven Bicycle.

GEO. H. EGGE, New York City, N. Y.—In connection with your trouble with a motor-fitted bicycle we recommend, as we do to all others in a similar predicament, that you give up the attempt to obtain the right kind of service from that sort of contraption. Under the most favorable conditions, that is, over well-paved streets, a bicycle fitted with a motor may do fairly good work. But we must admit that we have seldom heard of anyone successfully using that kind of a machine for any length of time under at all trying conditions. You will be better satisfied if you purchase a reliable second-hand motorcycle and afterwards graduate into the class of those who are in position to buy new machines. The great trouble with motor-fitted bicycles is that the frame is not strong enough to stand both the impulses of the engine and the strain of usage over rough roads. There is no way of avoiding this dilemma.

For the Kilometer, Not the Mile.

JAMES R. GEIGER, of Philadelphia, Pa., calls our attention to a typographical error in a recent issue. We stated that H. Cissac had ridden a mile, flying start, in 25 3-5 seconds, and 35 seconds, standing start. These figures are not for the mile but, of course, for the kilometer. In making these records Cissac rode a 14 h. twin Peugeot.

A Record Mystery Explained.

PAUL J. BAILEY, Lebanon, Ind.—The reason why Robt. Stubbs holds the amateur record for 75 to 95 miles, although Graves' time for 100 miles is less than Stubbs' record for 85, is due to the fact that Graves, when he broke the hundred mile record, was not timed for the intermediate miles. This simple explanation will probably serve to dispose of your inability to understand a rather puzzling combination.

The Gear of a Motorcycle.

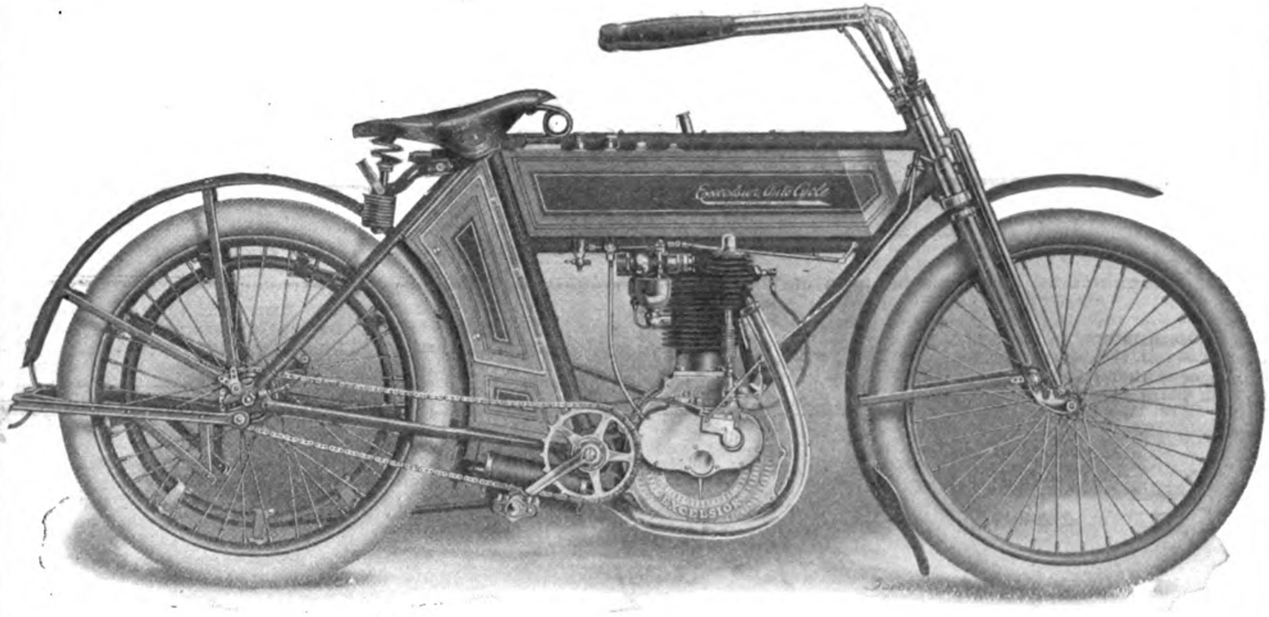
F. B. P., NEW ORLEANS.—The gear of a machine is based on the number of engine revolutions, as proportioned to the number of complete turns of the rear wheel. In chain machines it is figured by dividing the number of teeth in the engine sprocket into the number of teeth in the rear wheel; in belt machines, by a similar comparison of the engine and rear wheel pulleys.

Use An Auto Casing.

J. TOOGOOD, Allegheny, Pa.—In connection with your recent inquiry we can only suggest that you purchase a 28 x 3 tire with regular automobile casing. No rubber tire can be said to be absolutely puncture proof, but in view of the conditions which confront you, the acquisition of a heavy casing will probably prove the easiest way out of the difficulty.

Too Late for Classification.

FOR SALE—1909 five horse twin, chain drive Indian. Overhauled and in perfect condition. Good reason. Price $175. F. T. Clark, 52 Mt. Auburn St., Cambridge, Mass.



THERE ARE WAYS OF WINNING

When big road contests are held, we do not especially prepare and equip one machine for that event, but the steady, consistent service of all

EXCELSIOR AUTO-CYCLES

leads enthusiastic owners to enter in numbers confident of results.

In the New York Motorcycle Club's Single and Double Century Run of May 1st, Six Excelsiors started in the 200-mile class; three Excelsiors started in the 100-mile class.

All finished with perfect scores.

At the same time, Stanley T. Kellogg and Shelton Sturges rode 330 miles in 12½ hours without an adjustment or repair of any kind.

THUS DOES THE 1910

EXCELSIOR AUTO-CYCLE

MAINTAIN ITS REPUTATION AS

THE ONE THAT ALWAYS MAKES GOOD

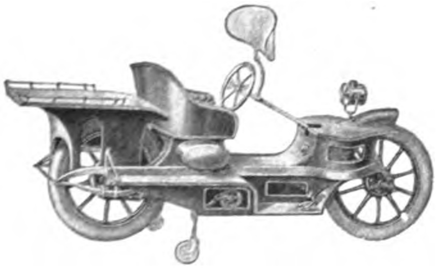
EXCELSIOR SUPPLY COMPANY
ESTABLISHED 1876
233-237 RANDOLPH STREET, CHICAGO, ILL.

MOTORCYCLES
MOTORCYCLES

MAKERS AND SELLERS

NEW MACHINE IS LITERALLY AN AUTOMOBILE ON TWO WHEELS.

CALLED a "two-wheeled auto," the invention of W. G. Moore and manufactured by the De Luxe Motor Car Company, 1002 American Trust Building, Cleveland, O., a machine whose lines and specifications are, to say the least, decidedly novel, has just been placed on the American market. Its manufacturers confidently believe that it will prove to be one of the 1910 sensations and, even more than that, point the way of future developments of the motor-driven two-wheeler. The illustration gives one a fair idea of the radical departures embodied in the substantial-looking mount, among the specifications of which the following are worth noting:



One or two cylinder (the latter opposed horizontally), four-cycle water-cooled engine with corrugated copper water jackets. Magneto ignition. Aluminum body. Thirty-inch wood artillery wheels; 2½-ins. tires. Ball bearing, two speeds with spark and throttle lever on steering wheel. A free engine that can be cranked from the ground or seat. High and low speed lever on foot board. Foot lever brake. Enclosed double chain drive. Leather faced cone clutches. Spark and throttle lever attached to steering wheel. Schebler carburetor. Gasoline tank capacity of four gallons, sufficient for 200 to 250 miles.

The rear mud guard is provided with a small baggage deck, large enough to carry grip or similar packages. The footboard is developed to the rear, providing ample room for an additional seat. Wheel base, 64 ins., 7 ins. road clearance. Weight 260 pounds. Price, $300 to $350.

In referring to his invention, Mr. Moore declared: "This car possesses so many features of utility, flexibility, convenience and economy as to place it in a field entirely by itself. It is positively the easiest riding vehicle made. It will stand alone at a crossing or while you attend to business. Two small idler wheels are concealed under the footboard and are under the control of a foot pedal on the footboard, and when coming to a stop or to merely crawl along behind traffic, the operator may drop them by pressing the foot lever, and after getting under way again, pick them up by merely releasing the same foot lever, so that the most timid rider may ride with perfect confidence and safety without putting his feet on the ground.

"It has a large, roomy, comfortably upholstered seat, which, together with the half elliptic springs at the rear, afford the greatest possible degree of comfort in riding. In fact, it possesses far smoother riding qualities than the finest four-wheeler, no pitching, tossing or lurching whatever. The speed is only limited by the confidence and courage of the operator, as the 8-10 h. engine is sufficient to propel the machine at a speed of 70 miles per hour, if the rider has the endurance and ambition.

"A lady may ride this machine without any embarrassment, and a business or professional man may ride it with as much pride and dignity as a machine costing $4,000 or $5,000.

"The artillery wood wheels, highly finished body and high grade mechanical construction put this auto-car in the same class with the high grade four-wheelers, while for flexibility and economy it is quite remarkable. This may seem a strong statement, but the fact that the engine and all its working parts are all covered and inclosed in the body and thoroughly protected from dust and exposure, justifies the assertion that this auto-vehicle is by far the most economical.

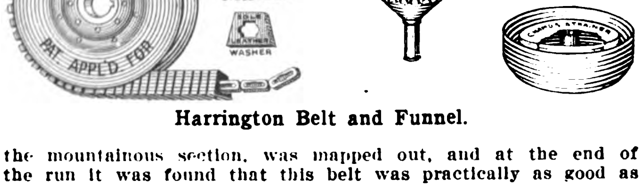
"The steering wheel and post are provided with a universal joint in the hood and may be tilted up out of the way for access and dismounting and to meet any individual requirements, enabling the operator to hold the steering wheel in the most comfortable possible position.

"My idea of an auto has been to provide a two-wheeled car with the convenience, safety and luxury of a four-wheeler, the economy of the motorcycle, and the flexibility and ease of control of a bicycle. I believe this to be demonstrated by the classy appearance suggested by the cut, and after exhaustive and expensive tests covering months of time and great labor, the solution of the balancing and steering problems have been solved with equal certainty.

"The machine will glide along smoothly and without wavering as slow as six miles an hour and can be turned in a short radius when under way. Anyone can master the control of the machine in one trip."

HARRINGTON "V" BELT MAKES GOOD UNDER VERY SEVERE TESTS.

IN connection with the recent tendency in favor of "V" belts, it is interesting to note a most successful application of the principle as shown in the accompanying illustration of the "Harrington" "V" belt, made by A. L. Harrington, 100 Franklin street, Chicago. This belt is the invention of a motorcycle enthusiast and practical mechanic. Before it was placed on the market a severe test was made, an extended ride over Western roads, in the mountainous section, was mapped out, and at the end of the run it was found that this belt was practically as good as new, insofar as actual wear and tear were concerned. The washers (which are cut from the best grade sole leather) were examined and found to be in excellent condition, having suffered no ill effects from oil or water, and satisfactorily resisting wear. These washers are strung on a detachable link steel chain, and while they prevent slipping, they grip, but do not bind. Another attractive feature of this belt is that it cannot stretch, and in case any part of it shows signs of wear, the washers can be quickly replaced on account of the detachable link chain.



Harrington Belt and Funnel.

For riding through sand and up hills this belt has demonstrated its worth. Another desirable feature claimed by the makers of this "V" belt is that the rear wheel keeps its shape better and the spokes stay tight longer when the power is transmitted to a pulley fastened to the rim, as there is no continual yank of the engine on the spokes. Then, too, the proper tension can always be maintained, and its flexibility allows it to bend around a small driving pulley, so that no power is lost in this manner.

That the inventor and manufacturer of this belt is awake to the needs of the motorist is also shown in another article recently placed on the market, viz., a collapsible funnel for filtering gasoline when filling motorcycle and auto tanks.

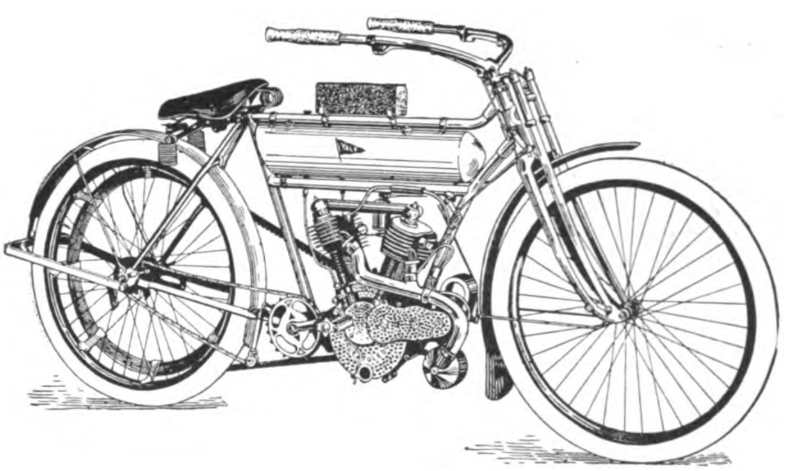
C. F. U. KELLY, the former president of the Lockport Rubber Company, is the head of the recently incorporated Kelly-Racine Rubber Company, organized in the Wisconsin city of that name, with a capital stock of $500,000. J. H. Dwight is secretary and L. J. Evans is treasurer.

CARL M. BUSH AND EDWARD McDOUGAL are members of a new firm which recently started in business on William street, Newark, N. J.

1910

YALE MOTORCYCLES

Prompt Deliveries



6½ H. P. TWIN CYLINDER, $300.00

FURTHER EVIDENCE OF YALE SUPERIORITY

In the New York Motorcycle Club Double Century Run May 1st, 135 riders started. Fifty-nine finished perfect

TWO YALE RIDERS STARTED
TWO YALE RIDERS FINISHED PERFECT

In the Pasadena-Ventura, Cal., Endurance Run, over 170 miles of the worst roads ever encountered by motorcyclists at an average speed of 25 miles per hour, there were 23 entries. Eighteen finished. Not one perfect score.

THREE WERE YALES

They made the HIGHEST AVERAGE of any one make of machine.
The road and average speed made a perfect score impossible.
This further proves YALE Efficiency and Reliability.

RIDE A YALE—THEY NEVER FAIL *Correspondence solicited from agents in open territory*

THE CONSOLIDATED MANUFACTURING COMPANY

1730 FERNWOOD AVE. *Member M. M. A.* TOLEDO, OHIO

TELEPHONE TROUBLE MEN AWHEEL.

HARLEY-DAVIDSON.
MOTORCYCLES
RACYCLE AND YALE.
Racycle BICYCLES
BICYCLES AND MOTOR CYCLES

A GROUP of linemen employed by the Cleveland Telephone Company, which has just purchased five Harley-Davidson machines for its trouble men. The results have been highly satisfactory and an extension of the service is contemplated.

From Dallas to Beaumont.

WITH Dallas as his starting place and Beaumont as his destination, Benjamin F. Howard, of the American Motor Company, recently rode an M. M. magneto special the distance intervening between those two cities. This is considered quite a journey, there being much hard going and plenty of sand, and Howard is being generally congratulated upon the success of his trip.

ONE of the handsomest and most extensive motor supply houses in the country is now conducted by the Hockaday Supply Company of Wichita, Kan., which is establishing itself in a new location at 406 East Douglas avenue. The old store at 230 N. Main street will be continued, but simply as a repair shop. Among the up-to-date features which will characterize the equipment of the new place will be an electric battery charging machine and a tire treading apparatus.

THE annual Indian run out of Indianapolis was given Sunday, May 22, by the G. H. Westing Company, agents for the Indian machines. The weather man predicted rain and only thirty riders participated. The weather, as a matter of fact, was the finest Indiana has had for many Sundays. The run was to Martinsville and return, a distance of about sixty miles for the round trip. The riders were entertained at dinner at the Martinsville Sanitarium by the company.

SOME very bright and effective advertising is being gotten out by the Merkel-Light folks. Their latest publicity enterprise is the issuance of a series of very clever advertisements to be used by their agents in the local newspapers. All Merkel dealers desiring the necessary cuts and copy may obtain the same by making application to the factory at Pottstown.

FOR STREET REPAIR SUPERINTENDENCE.

THE first motorcycle to be used by the city of Cleveland since automobiles were discarded has been assigned to C. L. Arnold of the street repair department. The picture was taken recently when Mr. Arnold, who is timekeeper, was looking over work in one of the downtown streets. Three other machines, also Harley-Davidsons, are to be purchased for the waterworks department, the park department and the park police.

Brake Makers Install New Motors.

THE New Departure Manufacturing Company, of Bristol, Conn., manufacturers of New Departure coaster brakes and bells, are installing a twin tandem Snow gas engine of 500 h., thereby increasing their power plant to five engines of this type. The new engines will furnish power for three new buildings now in course of erection. The company, among the busiest and most prosperous in New England, has been working day and night shifts in several departments for some time past and overtime in other departments.

R. F. D. Carriers Save Time.

INDIANA rural route carriers are finding the motorcycle just the thing for delivering mail. At Danville, Harry Hall, Harry Curtis and Clark Howell, carriers, have bought motorcycles. Hall formerly used a horse and wagon, requiring six hours to cover his route. With his motorcycle he is doing the same work in approximately two hours. A number of special delivery letter carriers of the Indianapolis post office are also using motorcycles.

AN error was made in connection with the description of the motorcycle siren horn, printed on page 66 of our May 15th issue. This horn is sold, not by the Sireno Company, but by the Motor Car Equipment Company, of 55 Warren street, New York City.

WITH improved and more extensive facilities the Thiem Manufacturing Company, which for some time has practically confined its energies to making engines, has begun to turn out large numbers of completed machines.

I AM enclosing a photograph of the bunch on an outing to Mount Washington, Ky., twenty miles out from Louisville. This was taken after the boys had partaken of a good country dinner

Louisville, Ky. R. L. DAVIS.

ALL MOTORCYCLISTS ENJOY THE SPRING

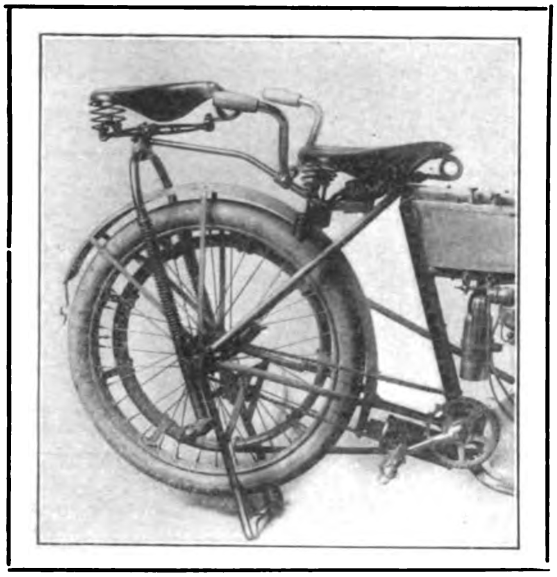
IN THE

DUCK TANDEM ATTACHMENT

OTHERWISE KNOWN AS THE

MOTORCYCLE TONNEAU

FITS ANY MOTORCYCLE



PAT. JUNE 8, '09.

NO JOLT OR JAR

The most **delicate person** can ride one.

Easy on the **tires.**

Quickly attached or detached.

An ornament to any motorcycle.

Guaranteed one year.

$27.50 complete F. O. B. factory.

Send $7.50 with order stating your mount. We will ship C. O. D. for balance.

Proper discounts to manufacturers, jobbers and dealers on sample orders.

Send for descriptive circular if in doubt.

DUCK-DEGEN CO., Mfrs.

427 15th Street **Oakland, California**

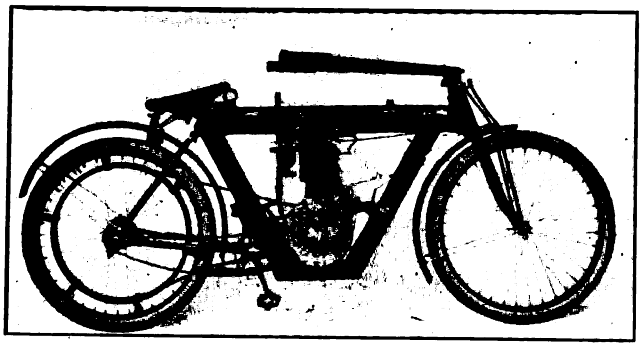
Novelty and Good Sense Combined in the New Detroit

LIKE many other automobile and motorcycle manufacturers, George W. Breed, designer of the new Detroit, was a professional bicycle rider. Back in 1884 he rode the high frame Springfield when the bicycle was in its infancy. For twelve years Mr. Breed studied the points of safe and comfortable riding. The developments of the bicycle resulted from faults discovered in strenuous races, just as improvements in automobile construction have been suggested by the results of endurance tours.

For six years he manufactured the Orleans bicycle, which he eventually sold to go with the Olds Motor Co. Here he laid the foundation of his gasoline engine knowledge. Next he entered the motorcycle field; among his other valuable experiences was a trip from San Diego, Cal., to Chicago, the first motorcycle run of its kind ever made.

The Detroit's strong features are its clean and racy lines; gasoline tank, lubricating oil, coil, batteries and muffler entirely contained in the frame; long wheel base, straight, long handle bars, low seat and general arrangements for easy riding under rough road conditions.

The heart of this machine is a four horse Detroit engine. It has a 3¼ ins. bore and 3½-ins. stroke. The cylinder is in one casting and has ample cooling surface. It is warranted not to overheat. The valves are unusually large for a motor of this size. They are electric welded; head of nickel steel and stem of high carbon steel. The pinion and secondary gears are forged in one piece. The timer is completely enclosed to afford protection from dust and water, and scientifically designed to give maximum results from coils and batteries.



The Detroit fork is trussed on a spring, heavily reinforced and proof against crystallization. Owing to the fact that many riders prefer the trussed fork, one of that type will be furnished if desired.

The frame is as low as sufficient road clearance permits. This gives a low engine and saddle and low center of gravity—a big factor for safety and comfort. The distance from the top of saddle to the ground is only thirty-one inches.

The frame itself is of Shelby seamless drawn steel tubing, carefully reinforced throughout. The steering head and one-piece seat cluster are of special steel, machined to fit the tubing. All joints are brazed.

The top bar of the frame contains a two-gallon seamless gasoline tank. It is a tank within a tank. It is absolutely tight, and will not permit gasoline to sweat to the surface or leak into other parts of the frame, because the double tubing keeps the gasoline from working its way through. The oil tank is contained in the frame directly above the muffler, from which it is separated by an air space and asbestos packing. The heat from the muffler keeps the oil at the proper consistency. The position of the muffler, besides resulting in efficiency of lubrication, allows the exhaust to spend itself on the ground instead of soiling and heating the rear part of the machine and ruining the back tire.

In the frame under the seat are the spark coil and batteries, perfectly insulated and completely protected from all outside influences, yet easily and instantly accessible by merely raising the seat cluster. A Schebler carbureter is placed directly behind the cylinder, taking its air supply from the heated walls of the cylinder. The Schebler is of the automatic float feed type. Oil is fed through a sight feed through the fly wheel directly to the main bearings and carried from there by the splash system to every moving part.

The handle bars are perfectly straight, of extra heavy seamless cold drawn steel tubing, of the V type, double socket attachment and cushion grips. The controls are straight solid rods running inside and protected by the handle bar tubes until the head is reached. From this point the control mechanism follows the head and general lines of the frame by which it is protected throughout its entire length. Power is transmitted from the engine to the rear wheel by a flat endless leather belt 1¾ ins. wide running over leather lagged pulleys.

The wheels are 28 ins. in diameter with steel rims and 12-14 gauge spokes. The rear wheel is equipped with a Corbin Duplex band brake hub. Two and one-half-ins. G & J corrugated tires are the standard equipment. Morgan & Wright or Kokomo tires will be furnished if specified. Mud guards are wide and long enough to give perfect protection to both rider and machine. All machines are equipped with the Person's Champion saddle.

The stand is of special design, fitted on bosses below the hub so that wheel may be removed while the stand supports the machine. The machine sells for $210, being made by the Detroit Motorcycle Manufacturing Company, 619 Majestic Building, Detroit, Mich.

A Cure For Solo Riding.

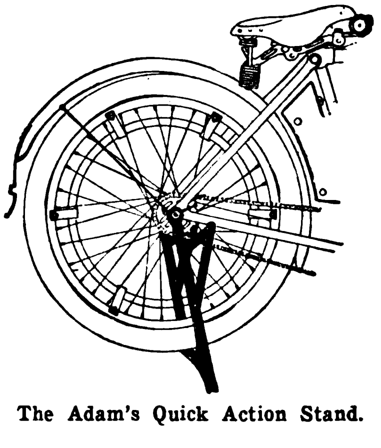
TANDEM riding which, by the way, is rapidly growing in popularity, may be comfortable and safe or just the contrary. In the first place, the machine must be up to the mark in the matter of strength and power. However, inasmuch as the average up-to-date single or twin meets all the requirements in this particular, the next most important point concerns the character of the tandem attachment. A device of this kind which is designed to supply company under conditions which can be thoroughly enjoyed by both riders, is surely a much to be desired article. In this connection it is decidedly a pleasure to call the attention of our readers to the page advertisement published elsewhere by the Duck-Degen Co., 427 Fifteenth street, Oakland, Cal., manufacturers of a highly practical shock absorbing tandem attachment. This is a thoroughly reliable concern which is turning out a device well worthy of investigation by anyone interested in double riding.

Good for Valve Grinding.

PUT up by the Carborundum Company of Niagara Falls, N. Y., Carborundum valve grinding compound may be had in one, three and five-pound cans of both the coarse and fine mixtures, respectively. Carborundum has demonstrated its efficiency beyond all question as applied to motor use for all work where a positively perfect valve seating is required. Its makers claim it to be far superior to powdered glass or emery for all classes of valve grinding, it being faster cutting, more uniform and harder and sharper than these materials. The coarser compound is used first in grinding the valve. It quickly removes all pits or masses of foreign matter. The finer compound is then applied for the purpose of giving the valve seat a perfectly true, polished surface. This compound has been found quite indispensable in garages and among repair men in general. For those who prefer to mix their own compounds, dry powders are offered in half-pound tins. The powders can be mixed with any good quality of grease or light oil.

W. W. SHOEMAKER, manufacturer of the Shoemaker belt, advertises in this issue a particularly interesting proposition for agents and supply dealers. We understand that the subject is well worth investigating, and we would advise up-to-date dealers to write for further particulars.

JANSEN and Peters, both good riders, and having the reputation of being imbued with the proper motorcycling spirit, are handling the Indian in New Orleans, where there are now about twenty-five machines of the different makes in use.



The Adam's Quick Action Stand.

The
GOODRICH "ROADSTER" MOTORCYCLE TIRE

GOODRICH MOTOR CYCLE TIRE
MFG. BY THE B. F. GOODRICH CO.
AKRON
28 X 2½
The
White Tire
For 1910

THE QUALITY

The **COLOR** is one of the most significant features of **The Roadster.** Just as the Goodrich trade-mark indicates quality, so the **WHITE** identifies the **Roadster** with that class which includes that wonderfully long-wearing Motorcycle Tire, **The Goodrich White Heavy Tread.** The principle of manufacture that has given durability, resilience and long life to the rubber of the **White Heavy Tread** has been applied to the making of **The Roadster.** The **Color** of this new tire declares its quality.

THE PRICE

THE PRICE of **The Roadster** assures its popularity. It is as low in price as any Motorcycle Tire on the market and it is within the means of every Motorcycle owner.

Supplied in four sizes, as follows: 26 x 2¼, 26 x 2½, 28 x 2¼, 28 x 2½, with either endless or butt-end inner tube.

(Repair Kit and Pump furnished at an extra charge of 50 cents.)

THE B. F. GOODRICH COMPANY, Akron, Ohio

AN OLD CONCERN MOVES INTO NEW QUARTERS

THE Excelsior Supply Company, whose establishment at 233-237 Randolph street, Chicago, has become known to every dealer in automobile, motorcycle and bicycle supplies in the country, has just moved into its new home on the west bank of the Chicago River.

The company has taken what has been known for some time as the Kelly-Maus Building, a seven-story structure extending from Randolph to Lake street, with the entrance on Randolph street at the west end of the Randolph street bridge, hence their adoption of the new address "Randolph Street Bridge, Chicago."

The building is a six-story-and-basement structure, seventy feet wide and over four hundred feet in length. Its location, between the river and the C., M. & St. P. tracks, affords the best possible facilities for handling goods by either water or rail. It also simplifies transportation between the Excelsior Company's new factory at 22nd and Union streets and their sales department, as this can now be handled by way of the river, the factory being on what is known as the 22nd street slip. A fast lighter for this purpose has already been ordered and river transportation between the two points will begin very shortly.

The greatly increased floor space allows for an ample display room for supplies on the first floor. The general offices will occupy a portion of the second floor, and the automobile supply stock, bicycle, motorcycle, tubing, sewing machine and other departments will all have ample space without interference with each other.

The building is so constructed that the basement floor is at the ground level, and the loading track runs into the basement so that loading the cars can be done under cover. Along the water front is an ample dock with a number of doorways, making shipping facilities by that route equally convenient.

The Excelsior Supply Company was established by the late George T. Robie in 1876, at that time dealing in sewing machine supplies, their quarters being smaller than some of the private office rooms of the new establishment. It was Mr. Robie's ambition to become the recognized leader in that line and like all the other objectives set by him, this was reached in a remarkably short time.

With the advent of the bicycle came the demand for bicycle supplies, which was greatly increased when thousands of small builders all over the country created a demand for bicycle parts as well as accessories. This line was added to the Excelsior Company's business and they soon assumed a position in the bicycle world similar to that maintained in the sewing machine supply business.

In the early days of the automobile industry, bicycle supply houses generally began to dabble in automobile accessories. The Excelsior Supply Company did not dabble; that was not their way. They went into it with vim. Avoiding the rocks that split many of their competitors, that is, endeavoring to handle automobile frame fittings, motors, transmission gears, etc., they confined their efforts to the accessories adapted to the finished car and have maintained that position even up to the present time.

This is a day of big things, particularly in the business world, buyers everywhere recognizing the advantages to be derived from dealing with companies of great magnitude and able to protect them in every way. Thus the Excelsior Supply Company has grown, in some cases rapidly, but always with a solid foundation and all its branches have been sturdy and self-supporting. The new establishment will place this company beyond question as the largest concern in the world dealing in motor supplies and kindred lines, and the end of their growth is not yet. The Excelsior folks have a way of living up to their name.

EASY TIRE VALVE REPAIR.

FOR the benefit of those who, being confronted with a leaky tire valve, may find themselves without a substitute. I have discovered through experience that if you take out the rubber in the valve stem and after having turned it inside out, put it back in place, you will have a stem practically as good as new, one which will prevent any escaping of air.

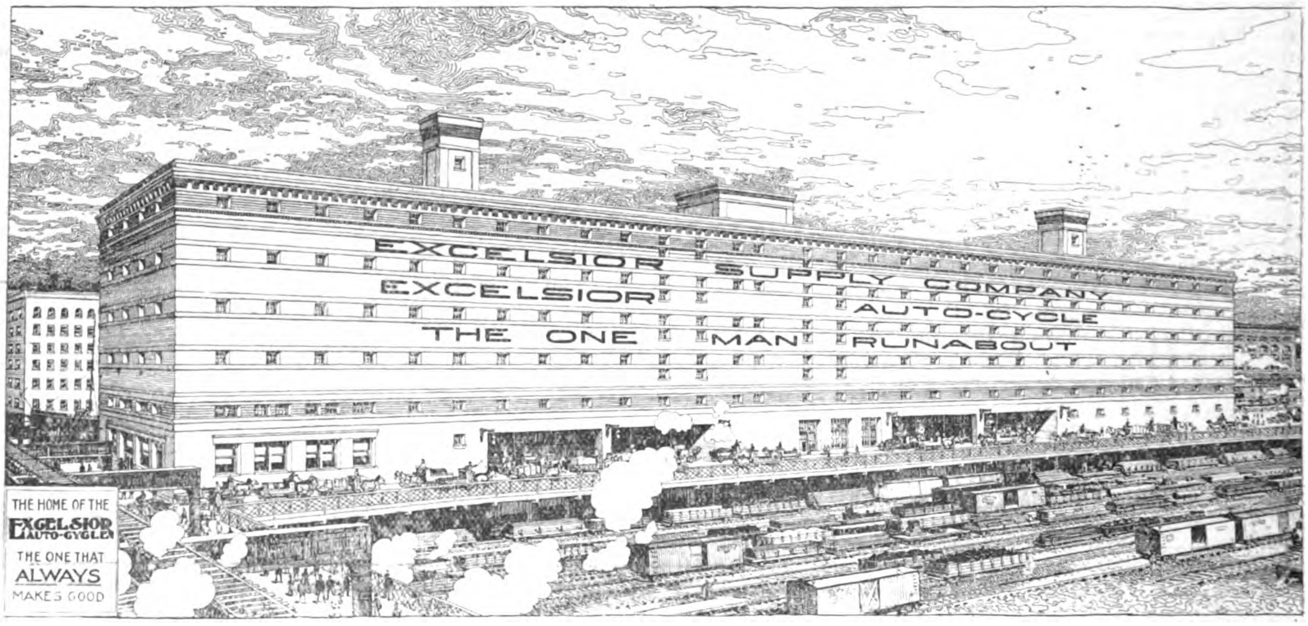
C. P. J.

East Granite City, Ill.

SAN DIEGO City Council has adopted an ordinance authorizing the Finance Department to purchase four machines, one of which is to be used in the Finance Department, another in the Sewer Department, and two by the Police. Excelsior machines have been selected.

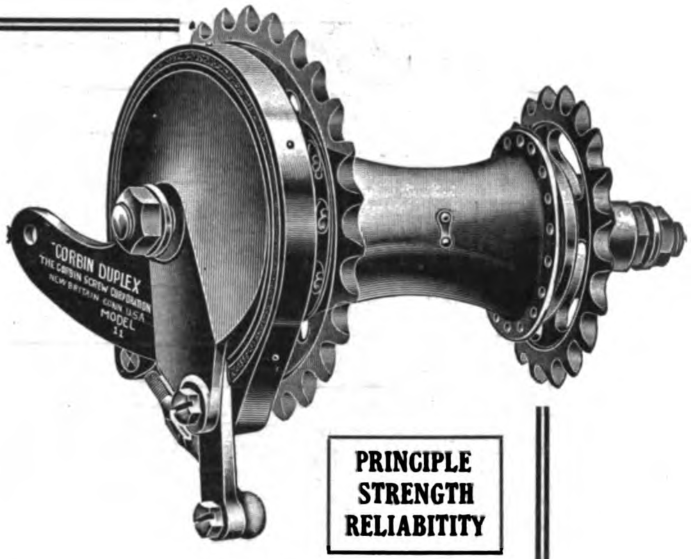
* *

PERRY PANFELY, Little Falls, N. Y.—Write to E. M. Estabrook, chairman of the Membership Committee of the F. A. M. His address is Bangor, Me.



Security on a Motorcycle

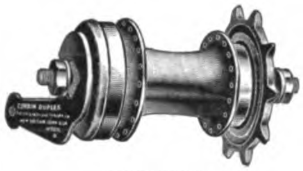
IS ASSURED WHEN A



Corbin BAND BRAKE

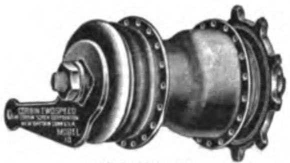
PRINCIPLE
STRENGTH
RELIABITITY

Is Part of Your Machine's Equipment



MODEL 8.

MODEL 9.



MODEL 10.

For Either Belt or Chain Driven Machines,

The Success of the **CORBIN BRAKE** Has Been Demonstrated to the Satisfaction of Thousands.

AGENTS AND RIDERS

Handle and Use a Brake Whose Efficiency is Universally Acknowledged. Quotations on Request.

THE CORBIN SCREW CORPORATION

LICENSED COASTER BRAKE MANUFACTURERS

THE CORBIN SCREW CORPORATION OF CHICAGO, 107-109 Lake Street, Chicago, Ill.

NEW BRITAIN, CONN., U. S. A.

WAREHOUSES

106, 108, 110 Lafayette Street, New York

Northwest Corner Eighth and Arch Streets, Philadelphia, Pa.

MOTORCYCLE MART

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word; two or more times, three cents per word each insertion. No advertisement for less than fifty cents.

"QUICK ENOUGH RETURNS FOR ANYBODY," WRITES A MART ADVERTISER.

KINDLY omit my advertisement from the next issue of your paper. Your Mart column is surely the thing for selling goods. My advertisement was published in the May first issue for the first time, and by the fifth I had sold my machine. That is quick enough returns for anybody.

"Very truly yours,
"GEO. F. MILLS."

"Shreveport, La."

FOR SALE OR EXCHANGE

FOR SALE—Motorcycle supplies, guns, cameras, etc., at twenty-five per cent. discount. Walter Harrington, Carthage, Mo.

FOR SALE—1909 2¾ h. p. Wagner motorcycle, used 800 miles; perfect condition. M. Loftsgard, Elgin, Iowa.

FOR SALE—5 h. p. marine engine and one nickel plating outfit for second-hand motorcycle. Blythe Hubbard, Rhinelander, Wis.

FOR SALE—Yale in fine condition, new tires. T. C. Schneerer, Norwakl, O.

WANTED—Second-hand Indian in good condition. T. S. Cahoon, 64 E. Seminary St., Norwalk, O.

FOR SALE—1910 Reading-Standard 4 h. p. A-1 condition; bargain. Box 263, Allentown, Pa.

FOR SALE—Harley-Davidson motorcycle, almost new and guaranteed as good. Has never failed to run or cost a cent for repairs. Reason for selling—have bought automobile; in absolutely as perfect condition as when it left factory. Price, $160. Write for particulars. Dr. Howard H. Hopkins, Monrovia, Frederick Co., Maryland.

WANTED—B. & C. two-speed gear for 1909 Indian. Must be in perfect order. How much? Write. Deracke, 127 McDougal street, New York.

WANT TO SACRIFICE 1910 Emblem twin 7 h. p. with magneto and idler. Never been turned over. No reasonable offer refused. G. Feltman, Albany, N. Y.

FOR SALE—1909 Indian twin; 5 h. p.; nearly brand new; $195. No exchange; must sell; write for further description and photo. W. A. Dunn, Chester, W. Va., P. O. Box 7.

FOR SALE—'08 M. M. 4 h. p.; just overhauled by manufacturers; new spring fork and automatic stand; also new rear wheel and tire; awful sacrifice at $70. C. B. Drew, Sadsburyville, Pa.

FOR SALE—$125 takes new M. M. Magneto Special and complete outfit. Shiffer, North Woodstock, N. H.

WILL SACRIFICE my 1910 Twin Thor $45 less than cost. G. H. W., Room 18, McCurdy Block, Canton, Ohio.

WRITE for description, photo and price of an Indian Twin, almost brand new in every respect. A snap for quick sale. "Snap," care of MOTORCYCLE ILLUSTRATED.

WANTED—B. & C. two-speed gear for 1910 twin; must be in good condition. T. M. Caldwell, Amarillo, Tex.

GREAT MOTORCYCLE BARGAIN—1909 Indian belt drive, 5 h. p. twin, magneto, horn, speedometer, extra inner tube, stand and tools, used as agent's demonstrator; always kept in perfect condition; run only one thousand miles; value when new, with extras, $300. For price, write to H. J. Allington, Saginaw, Mich.

FOR SALE.—Five horse twin Indian, diamond frame, with magneto fan for cooling cylinder; extra auxiliary gasoline tank and tandem attachment, all in good shape. Cost $325; will sell for $140. W. E. Shulenberger, Salisbury, N. C.

FOR SALE—Reasonable 7 h. 1909 M. M. twin magneto; lamp, horn and speedometer. Good reason for selling. Write or call, evening, six to ten. L. Pierce, 142 Rutland road, Brooklyn.

WANTED—One seat and springs for Indian tri-car. Must be in good shape and price low. Stoddard & Reed, 2015 Main street, Jacksonville, Fla.

FOR SALE—Armac single; cylinder rebored; piston, rings, gears, pulley, connecting rod, forks, horn, stand, etc., all new. Owned by machinist; $100. Loyd Barrick, Brazil, Ind., R. F. D. No. 1.

FOR SALE—R.-S., 6 h. p. twin, in first-class condition. J. Grossman, J., 328 South Tenth street, Reading, Pa.

FOR SALE—1909 model, M. M. battey special motorcycle, 3½ h. p.; flat belt drive, 2½-inch tires in good condition; little used and good as new. Cost $200, will sell for $100. Address E. C. Flegle, Arlington, Ky.

FOR SALE—F. N. four-cylinder motorcycle; 1908 model; been ridden but little over 1,000 miles; in good condition; cost $350; will sell for $185; a bargain. Address "Bargain," care MOTORCYCLE ILLUSTRATED.

FORCED TO SELL BECAUSE OF ILLNESS.—Late 1909 5 h. twin cylinder loop frame chain drive Indian motorcycle, in perfect condition with complete accessory equipment. $200. Address Motorcycle, 31 Brook street, Brookline, Mass.

FOR SALE—1909 model M. M. magneto twin, 7 h.; free engine clutch; Stewart speedometer; been ridden about 200 miles· perfect condition. Price, $225. L. S. Wilson, Titusville, Fla.

FOR SALE—1910 Indian, 7 h. twin cylinder; free engine with two speed gear, magneto, foot rests, Solar headlight, speedometer, horn, luggage carrier and stand. A superb outfit only slightly used. Enamel perfect. Have auto; sole reason for selling. Low price for quick sale. J. R. Mecklenberg, Mishawaka, Indiana.

FOR SALE—1910 four cylinder Pierce; run 200 miles; just like new; will sell for $300. Harry English, 418 Main street, Poughkeepsie, N. Y.

WILL SACRIFICE—1910 5 h. Twin Indian; ridden only a few miles; perfect condition; to quick buyer. $240. Fred Purdue, 574 Main street, East Orange, N. J. Telephone 1950.

FOR SALE—Thiem Model B, 1909 motorcycle, 3½ h., new rear tire, and new belt; fine condition; will sacrifice for $100 cash. J. L. Lenihan, Lakeville, Minn.

FOR SALE—Sidecar $30; cost $60; good as new; G & J tire; leather cushion; rides like a cradle; fits any machine. Harold F. Turner, 106 White street, Syracuse, N. Y.

AGENTS CARDS, ETC.

F. N. OWNERS ATTENTION!—We have for sale a considerable quantity of F. N. parts. If interested, write for particulars. Tiger Cycle Works Co., 782 Eighth avenue, New York.

WANTED—Second-hand motor cycles, Indians, Marsh Metz, Merkel-Light and Excelsior. E. J. Willis Co., 8 Park place, New York.

MOTORCYCLES thoroughly overhauled and repaired; agents for Thor and Excelsior motorcycles; supplies and sundries. Brazenor & Ruderman, 1041 Bedford avenue, Brooklyn, N. Y.

SECOND-HAND M. M. BARGAINS—Exhaust Whistles, Hand Idlers. M. M. Branch, 895 Main street, Buffalo, N. Y.

SECOND HAND BARGAINS.—Any make of motorcycle; all machines in good condition. Parris, 2208 N. Broad street, Philadelphia, Pa.

IF IT IS a second-hand machine you want, write to A. D. Cook, 111 Monroe avenue, Rochester, N. Y.; Curtiss Agency.

BARGAINS in accessories. Always on top. We have the largest stock and lowest prices in America. Write today for catalogue. Motorcycle Equipment Co., Hammondsport, N. Y.

WANTED. A Man to Take Full Charge of Motorcycle Manufacturers' Office.

State age, salary, references, experience. Address "Office," care of MOTORCYCLE ILLUSTRATED, 299 Broadway, N. Y.

AN UNSOLICITED TESTIMONIAL

AS TO THE VALUE OF

G & J TIRES

On May 18th and 19th **Mr. Perrin B. Whitney,** manager of the **"Indian" Branch in Chicago,** accompanied by Messrs. **Fred Huyck** and **Harry W. Miller** made the Chicago-Indianapolis round trip.

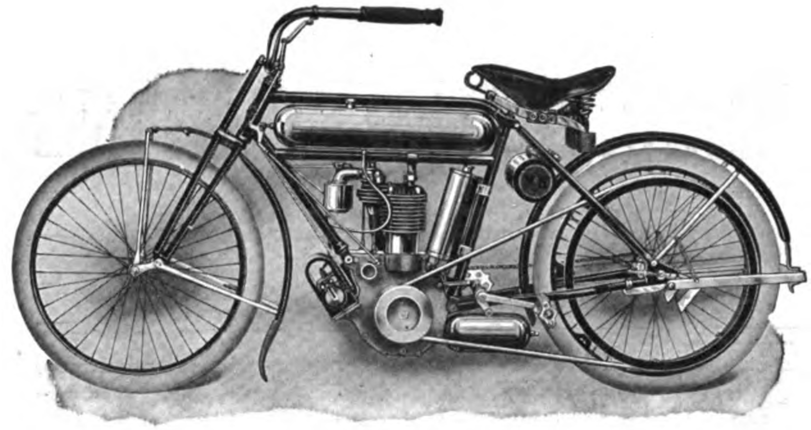
Mr. Whitney writes under date of May 26th, 1910:

"As almost the entire trip was over muddy and very bad roads, we had all kinds of chances for skidding, etc. By using the Bailey G & J Tire we found it possible to ride these roads even when they were very slippery with very satisfactory results. We encountered several thunder showers and for two days were in an almost continual rain from the time we started until night.

"The 1910 G & J Tires are the most satisfactory tires ever constructed. We have had absolutely no replacements to make so far this year either in casings or tubes, which is certainly a very satisfactory record from every point of view."

G & J TIRE CO.

INDIANAPOLIS, INDIANA



M. M. 4 h. p. Magneto Single. Price $225.

When fitted with the free engine clutch, the M. M. starts like an automobile.

No difficult contortions to operate the M. M. in traffic. Positively the easiest riding motorcycle ever produced.

M. M. agents are getting deliveries, not promises, and are making money. Write us today.

AMERICAN MOTOR COMPANY

1910 PITTSFIELD 1910

SPARK COILS, SPARK PLUGS, SWITCHES, TIMERS AND DISTRIBUTERS AND MAGNETOS

MADE IN AMERICA ***HAVE NO SUPERIOR IN THE MARKET***

Magneto Spark Plug

The following testimonial was recently received by the Pittsfield Spark Coil Co., unsolicited.

"Columbus, Ohio, Oct. 11th, 1909.

"PITTSFIELD SPARK COIL CO.,
"Dalton, Mass.

"Gentlemen:—

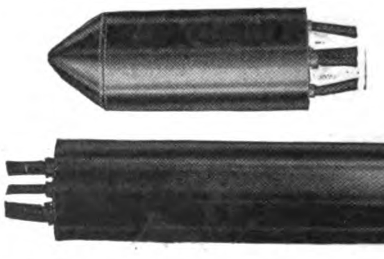
"I think you will be interested to know I am using the best coil "PITTSFIELD," on my run from San Francisco to New Orleans and New York.

"I have covered 5,763 miles, 2,022 on railroad cross ties, and have had a terrible trip. Have been out thirty-seven days and had no ignition trouble. Your coil has stood unreasonable endurance, exposed to water, heat and cold in many States.

"I am an old-time rider and one who knows a good thing.

"Yours truly.
(Signed) "H. F. MERIWEATHER."

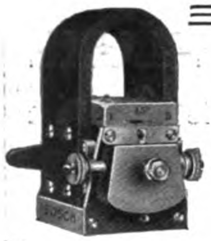
A Line of Pittsfield Goods is carried by H. V. Greenwood, 166 Lake Street, Chicago



Write today for particulars, catalogues, price lists and instructions.

PITTSFIELD SPARK COIL CO., Flansbury Ave., Dalton, Mass.

Sales Representatives: New England, W. J. Connell, 36 Columbus Avenue, Boston. **Atlantic States,** Thomas J. Wetzel, 17 West 42nd Street, New York. **Central States,** K. Franklin Peterson, H. V. Greenwood, 166 Lake Street, Chicago **Michigan.** L. D. Bolton, 319 Hammond Building, Detroit. **Pacific Coast,** The Laugenour Co., San Francisco.



English Tourist Trophy Race
A Bosch Equipped Triumph

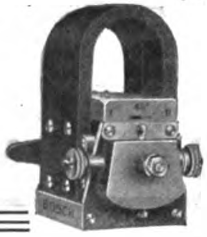
In the great English Tourist Trophy Race held on the Isle of Man, May 26th, there were 83 motorcycle entries. The course with its ten circuits was 158 miles and 220 yards. A race to bring out endurance, staying power and efficiency of every motorcycle and its equipment. Here are the results:

Twenty-six Machines Finished
Twenty-two of these were Equipped
WITH BOSCH MAGNETOS
The First Fifteen Were Bosch Equipped

It's wise to specify "Bosch Magneto" when you buy

BOSCH MAGNETO COMPANY

223-225 West 46th Street, New York
CHICAGO BRANCH: 1253 Michigan Ave. DETROIT BRANCH, 870 Woodward Ave.
SAN FRANCISCO BRANCH: 357 Van Ness Ave.



When you strike rough road you feel the difference. Ask any rider the facts about

MESINGER

"CAVALRY" and "STANDARD"
MOTORCYCLE SADDLES

MESINGER
"CAVALRY"
SADDLE

MESINGER
"STANDARD"
SADDLE

Ask What The Patented Shock Absorbers Do

Built for COMFORT, tested and approved by many manufacturers of motorcycles. They save the rider and machine from disagreeable jolts, prevent side-sway and add pleasure to motorcycling.

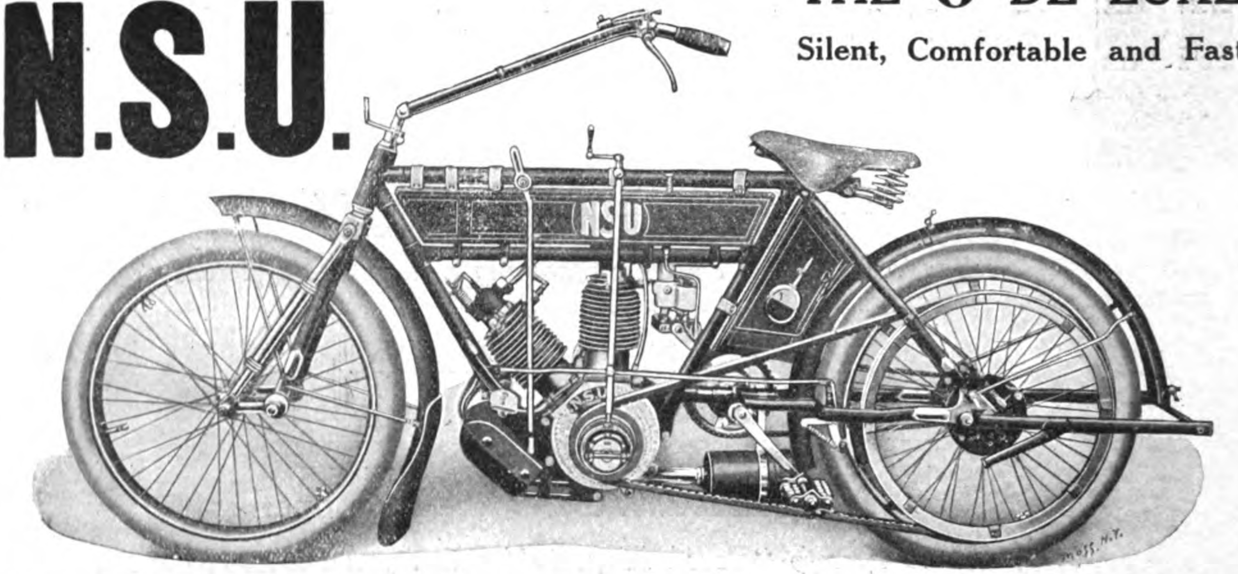
H. F. MESINGER MFG. CO.
1801-1807 First Avenue, - NEW YORK

THE TWO SPEED

N.S.U.

THE 6 DE LUXE

Silent, Comfortable and Fast



THIS model represents without question the most perfect touring motorcycle. Whether thru mud, sand, or rocks, it requires no effort to keep it going. Its perfect balance, its spring forks with shock absorbers makes child's play of the roughest mountain road. Its quick detachable wheels allow complete tire changes in 10 minutes. Its two speed and free engine gear, two brakes, foot rests, etc., should carefully be looked into before you decide. Write today for our Art Catalogue "M."

N. S. U. MOTOR CO. Members M. M. A. **206 West 76th St., New York City**

Ask ten of your Motorcycling friends who use

MORGAN & WRIGHT TIRES

what they think of them.

Decide whether or not you will use them this coming season by what they say.

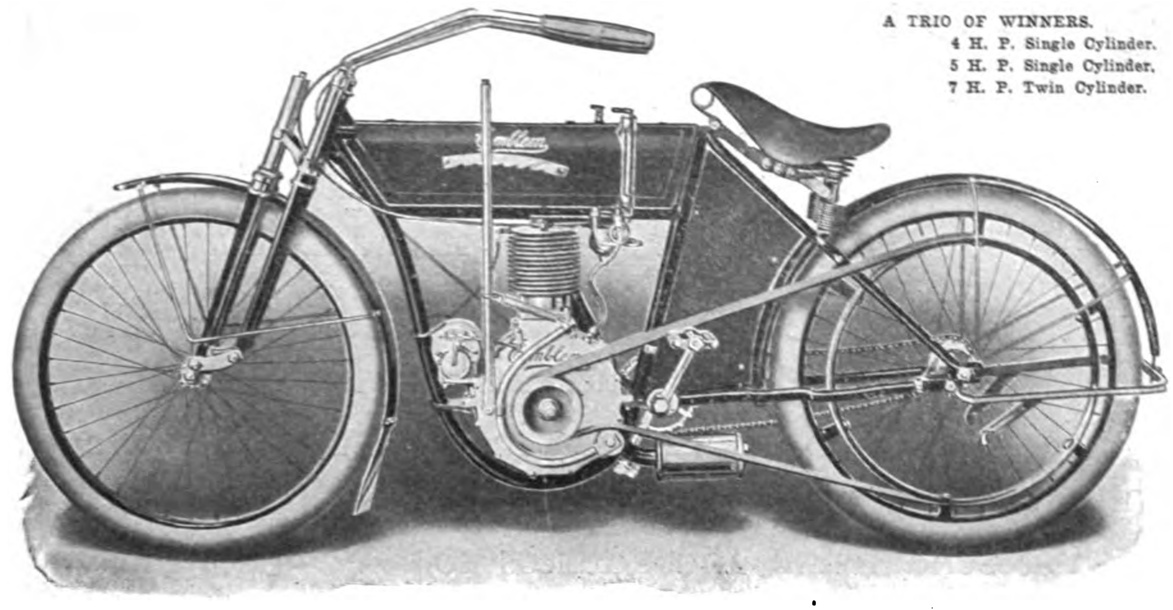
MORGAN & WRIGHT TIRES
ARE GOOD TIRES

MORGAN & WRIGHT - - DETROIT

Class, Power, Speed and Satisfaction are the Appealing Features of the

1910 EMBLEM MOTORCYCLES

A TRIO OF WINNERS.
4 H. P. Single Cylinder.
5 H. P. Single Cylinder.
7 H. P. Twin Cylinder.



EMBLEM MANUFACTURING CO., Angola (Erie Co.), N. Y.

ALSO MANUFACTURERS OF THE EMBLEM BICYCLE.

DISTRIBUTORS.

John T. Bill & Co., Los Angeles, for California
F. M. Spinning, Seattle, for Washington.
Meredith Cycle Co., Salt Lake City, for Utah.
Ballou & Wright, Portland, for Oregon.
Alexander-Sewald Co., Atlanta, Ga., for the South
Henry Keidel & Co., Balt., Md., for Va. & W. Va.

THE ONLY REAL QUALITY MOTORCYCLE SADDLES

EVER MANUFACTURED

TRY THEM AND BE CONVINCED

YOUR LONG TRIPS ON THE MOTORCYCLE WILL BE PLEASURE TRIPS IF YOU RIDE

TROXEL EAGLE MOTOR SADDLE
Length, 13¼ inches Width, 12 inches

TROXEL MOTOR SADDLES

Troxel New Wood Base Motor Saddle
Length, 14½ inches Width, 12¼ inches

These Saddles are the Finest and Best money can produce. Why not have them ?

MANUFACTURED BY THE OLD HOUSE OF REPUTATION

THE TROXEL MFG. CO., .. Elyria, Ohio, U. S. A.

$ DOLLARS PROFITS $

FOR

MOTORCYCLE AGENTS AND SUPPLY DEALERS

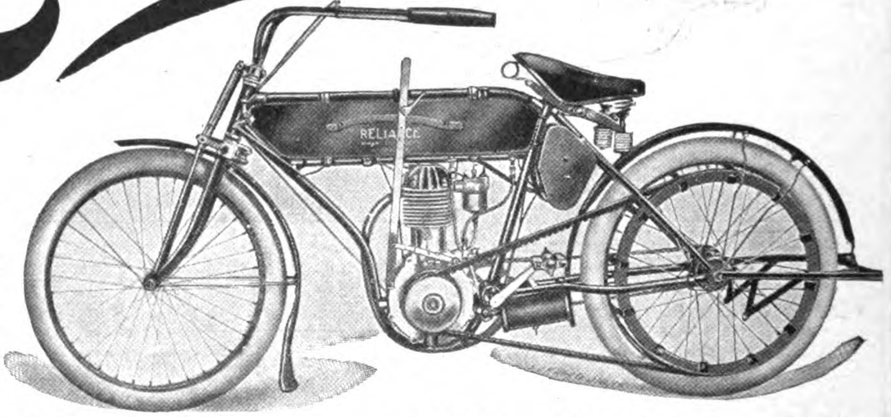
We have the greatest proposition ever offered MOTORCYCLE AGENTS and SUPPLY DEALERS.

Details cannot be given in the limited space of this advertisement.

Just send name and address to

$ **W. W. SHOEMAKER,** 242 Chestnut Street
Philadelphia, Pa. $

Reliance



A COUPLE OF FEATURES:

Truss SPRING Fork, the most flexible and enduring made.

Two-Speed and Free Engine Transmission Gear, the FIRST practical, compact arrangement made. Largest Clutch, Largest Gears and Largest Wearing Surfaces. One lever control.

With this transmission the rider can start from standstill on the steepest hill. An absolute necessity for the construction of the perfect motorcycle. Full details in our catalogue, let us send you one.

RELIANCE MOTORCYCLE CO., (MEMBER M. M. A.) **OWEGO, N. Y.**

Makes Night Riding Safe

Scores of accidents are due to feeble and treacherous lights. The pleasure and safety of the motorcyclist are assured when the pathway is flooded far ahead with the powerful, unflickering rays of

PREST-O-LITE Gas Tank

Steady, dependable, strong—this matchless light for motoring is worth more than all the accident insurance you can buy.

Prest-O-Lite is used almost universally by automobilists. Thousands of motorcyclists have learned its convenience and real economy. The Prest-O-Lite Motorcycle Tank is 12 inches long, 4 inches in diameter and weights only 7 pounds.

Costs Less than a Penny an Hour

Gives you 80 hours of perfect light (using a 1/8 ft. burner). Exchange empty tank for full one at a cost of only 60 cents. Exchange agents everywhere—5,000 of them.

The original investment is $10 for the first tank—but remember, a Prest-O-Lite tank never becomes "second-hand." It is always in demand—always a saleable article.

See your dealer today or write us

THE PREST-O-LITE CO., 246 East South St., Indianapolis, Ind.

Branches at New York, Boston, Philadelphia, Cleveland, Chicago, Detroit, Providence, Minneapolis, Omaha, Dallas, Los Angeles and San Francisco.

LONG LIFE—LARGE MILEAGE

COMPLETELY ATTAINED IN

Diamond

MOTOR-CYCLE TIRES

Tough, wear-resisting, anti-skidding, non-slipping Tread.

Strong, resilient interior construction that defies the abrasion of severe road service.

"Users Like Them"

Diamond
Motor Cycle

THE DIAMOND RUBBER CO.

AKRON, OHIO

MOTORCYCLES

Are All That We Claim For Them

One Agent Says:

Yonkers, N. Y., May 8, 1910
READING STANDARD CO., Reading, Pa.

Gentlemen:—The Red Machine, Model "7," 4 H. P., arrived O. K. and I was very much pleased with it. You certainly can think yourselves proud, as it is the classiest machine that ever came over the pike, and is all that you have cracked it up to be.

Very truly yours,
A. SCHEMEL.

Denver, Col., 5-16-10
READING STANDARD CO.,
Reading, Pa.

Gentlemen:—We have tested the Model "5," 3 H. P., and it is certainly a wonderful little machine for its size. Very truly yours,
W. B. GLASSER.

ALL RIDERS SATISFIED

These are the kind of testimonials received by us daily from all parts of the country.

They prove that the is "America's Best" Motorcycle.

Our Illustrated Catalogue gives you some of the reasons why it is Best. Write for it. It is the "Wheel of Progress."

Ride and Sell "The Motorcycle of Quality."

Write for Agency proposition in unoccupied Territory.

MANUFACTURED BY

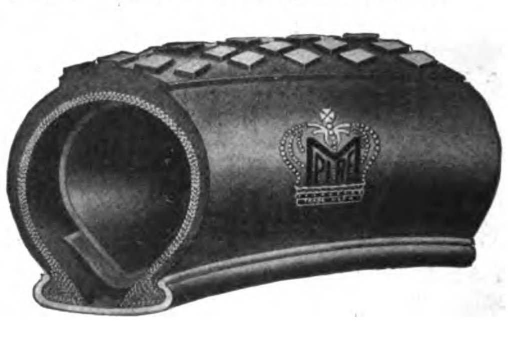
READING STANDARD COMPANY
Bingaman and Water Streets - - READING, PA.

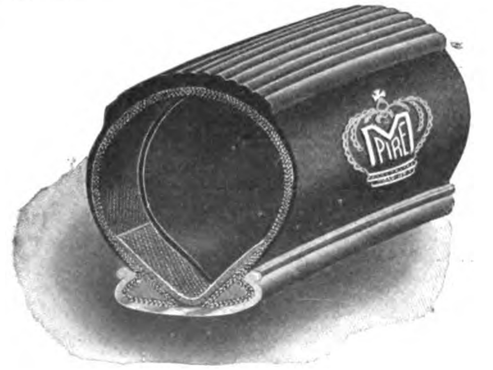
Empire Tires
WEAR LONGEST

Empire molded motorcycle tires are extra heavy and extra strong. They are made to give proper service on the heavier and faster motorcycles now being generally made. The best quality of Sea Island fabric is used—closely woven, of the same type as used in automobile tire construction. High class rubber is used throughout, which will give great wear and withstand great abuse.

CORRUGATED TREAD TIRE

This design will aid greatly in preventing side slipping, without detracting from the resilience or easy-riding quality of the tire in straight riding.

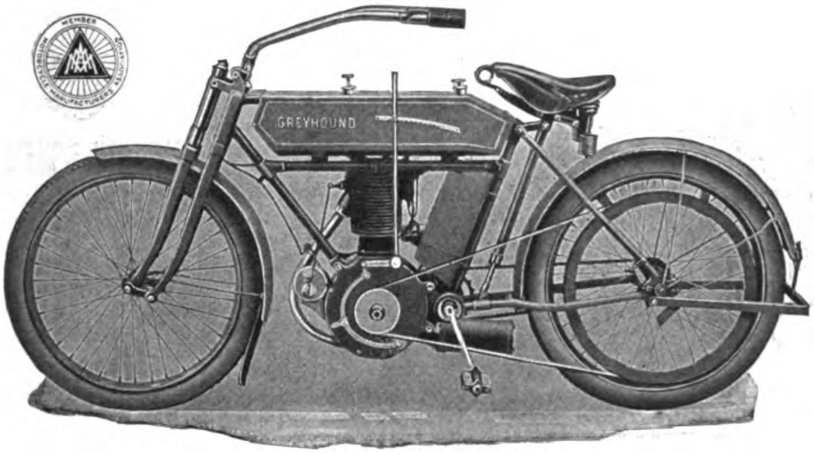




The Checkered Tread is the best non-skid tire ever offered for motorcyclists' use. It is very handsome in appearance. The rubber used in the tread is of a composition that gives the largest possible service. One of these tires ought to be on the rear of every motorcycle, the year around, as a guarantee against dangerous side slips.

EMPIRE TIRE COMPANY
TRENTON, N. J.

THE SPLENDID GREYHOUND



is jumping to the front, quite naturally. A motorcycle so excellent as this will not fail of appreciation and now that they are being shipped in quantity, they are breeding new business wherever they go. Design, material, workmanship—all fine. Comfort equipment, unequalled in all the wide world. Find out about them if you want the best motorcycle to sell or to ride. Catalog free.

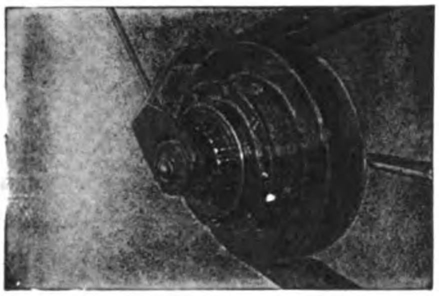
GREYHOUND MOTOR WORKS
1459 Niagara St., Buffalo, N. Y.

SALES AGENTS: Metropolitan District—ABBOTT-DETROIT SALES CO., 1521 Bedford Ave., Brooklyn, N. Y. Illinois, Indiana and Wisconsin—WHIPPLE, "The Motorcycle Man," 923 Jackson Blvd., Chicago, Ill. California—GEORGE E. HENGERER, San Gabriel, Cal.

PROOFS OF THE SUCCESS OF

ECLIPSE FREE ENGINE PULLEYS

Are being furnished every day in all parts of the country



ECLIPSE FREE ENGINE

We are now prepared to furnish Free Engine Pulleys to fit the following machines:

MERKEL EMBLEM
CURTISS EXCELSIOR
YALE GREYHOUND
ROYAL PIONEER

SAMPLE LETTER OF A SATISFIED USER:

Newark, N. J., May 23, 1910.

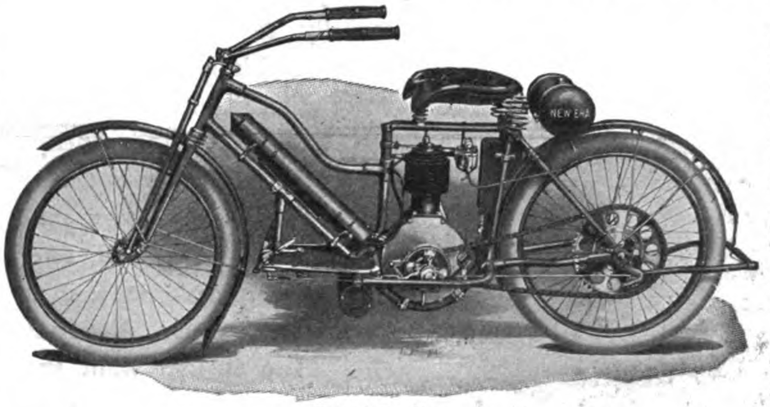
"Eclipse Machine Co., Elmira, N. Y.

"Gentlemen: As to the working of the Eclipse Free Engine Pulley, I am pleased to say it is most satisfactory. I started my machine from a dead stop without pushing or pedaling at all, simply by pulling the clutch in gradually. I was also able to climb 'Cushmall Hill,' which is the test hill for Jersey motorcyclists, and then had the theretofore unknown pleasure of coasting down again as silently and much more rapidly than on a bicycle. Yours very truly, "ARTHUR GENSCH."

ECLIPSE MACHINE CO., ELMIRA, N. Y.
Licensed Coaster Brake Manufacturers

NEW ERA AUTO-CYCLE

IT'S THE HAPPIEST COMBINATION OF COMFORT-SAFETY-SPEED-DURABILITY AND FUEL ECONOMY



Patent Pending.

DON'T mistake it for an ordinary motor-cycle—it's extraordinary: The only two-wheel Automobile on the market—the only motor-cycle without pedals, without the old-fashioned saddle, without vibration, without work. WHY? HOW? It's motor—an air-cooled 3½ and 5 H. P. single cylinder—is started by means of a crank, like an Auto—in a few seconds, without pedaling.

NO SADDLE SORENESS EITHER

For the form seat—leather upholstered, and the position of it, between the wheels—prevents it. The foot-board helps lots. No hill too high, no street too crowded for the New Era with its two-speed transmission, which makes the rider the master over every emergency. Our catalogue tells the rest. Shall we send it?

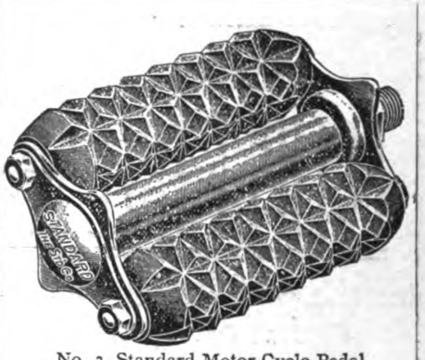
THE QUESTION REMAINS: DO YOU WANT A "NEW ERA" AGENCY?

Write us today

THE NEW ERA AUTO-CYCLE CO.

No. 22 Dale Avenue DAYTON, O.

STANDARD MOTORCYCLE PEDALS



No. 3, Standard Motor Cycle Pedal

***Wide Tread Pedals* combining *Comfort, Utility* and *Reliability*. Constructed of the *Best* materials by *Skilled Mechanics*.**

PRICE, $3.00 PAIR

Emergency Axles, Sager Motorcycle Toe Clip, Diamond E <E> Spokes. Bridgeport and Standard Pedals. Sager and Standard Toe Clips.

Send for our Descriptive Circulars

THE STANDARD COMPANY

Torrington, Conn., U. S. A.

Motorcycle Cases at Half Price

If you compare these prices with the factory quotation and examine the quality, you will say they are a bargain. There are 4,000 in this lot, the largest purchase ever made of Motorcycle Cases. We cleaned out the stock of the M. & W. factory when they changed the style of lettering on their moulds for 1910. While not guaranteed, every one is practically perfect.

SINGLE CLINCH—MOULDED TYPE

Priced Each Size	Regular Weight Basket Weave	"Tourist" Heavy Basket Weave	"Bailey" Tread
26x2¼	$5.00	$5.50	$5.50
26x2½	5.25	5.75	....
28x2	5.00	5.50	....
28x2¼	5.25	5.75	5.75
28x2½	5.50	6.00	6.00

DOUBLE CLINCH—MOULDED TYPE

Priced Each Size	Corrugated or Basket Weave	"Tourist" Heavy Basket Weave	"Bailey" Tread
26x2¼	$5.25	$5.75	$5.75
26x2½	5.50	6.00	6.00
28x2	5.25	5.75	....
28x2¼	5.50	6.00	6.00
28x2½	5.75	6.25	6.25

LET US SEND SAMPLES WITHOUT OBLIGATION

If you order samples you are free to examine them thoroughly upon receipt and return them at our expense if they do not come up to your expectations. They are the best value we ever saw.

The above are offered subject to prior sale and an early purchase is suggested. Please be very careful to specify "Second" and state whether you want "Single" or "Double" Clinch and give first and second choice of style of tread.

1910 CATALOGUE IS READY

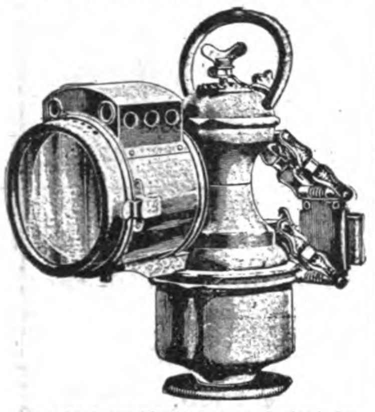
Send for catalogue No. 45 (Motorcycle and Bicycle Goods) and No. 44 (Automobile Accessories) and do business with a house with a record of 14 years of square dealing. Dealers will please enclose their cards.

NEW YORK SPORTING GOODS CO., 15 and 17 Warren St., NEW YORK

UP-TO-DATE ACCESSORIES for the Motorcyclist

Write today for our trade prices. Get acquainted with our line of goods. We can show you how to make more money.

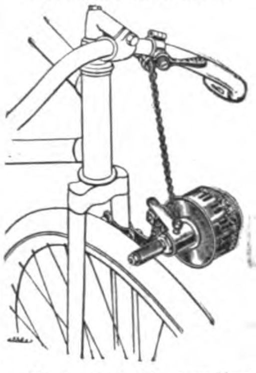
Combined Lamp and Generator



The best combination ever devised for the motorcyclist. Lamp has powerful mirror lens which projects tremendous light. Generator is simple in construction and easy in operation. Entire outfit weighs only 15 oz. Nickel finish.

No 88 Price $5.00 complete

Motorcycle Siren Horn

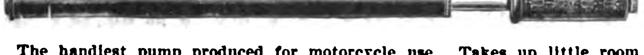


Most powerful sounding horn designed for motorcycles. Operates by being brought into contact with front wheel. Controlled from handle bar. Supplied in nickel finish.

No. 2 Price with ratchet lever like above - - - - - $8.00

No. 1 Price with chain attachment 6.50

Continental Motorcycle Pump



The handiest pump produced for motorcycle use. Takes up little room as it fastens to frame. Furnished with frame clips. Made of celluloid. Two sizes. **15 inches long, Price 75c.** **18 inches long, Price $1.00**

If You Desire More Business and Increased Profits Write

The Motor Car Equipment Co., 55 Warren St., New York

THE HARLEY-DAVIDSON

FINISHED FIRST

IN THE SINGLE CYLINDER CLASS AT THE

RIVERSIDE HILL CLIMB

MINNEAPOLIS, MAY 22

HARLEY DAVIDSON

The winning Harley-Davidson was a **FULLY EQUIPPED STOCK MACHINE**, while some of the other competing machines were **STRIPPED.**

RIDE A WINNER

Harley-Davidson Motor Co.
MILWAUKEE, WIS.

The Neverout

TRADE MARK

MOTORCYCLE OIL LAMP

SHOWING A RED REAR LIGHT

¶ The Neverout burns kerosene ten hours with one filling, and will stay lighted under any and all conditions. ¶ All riveted—will not rattle apart over roughest roads.

¶ Made in gun metal, brass or nickel finish

AN OIL LAMP THAT MAKES MORE LIGHT THAN MOST GAS LAMPS

The Neverout
TRADE MARK
PREVENTS ACCIDENTS
NOTE REAR SIGNAL
FOR MOTOR CYCLES
PATENTED

Lamp Weighs Only 12½ Ounces

GUARANTEED TO STAY LIGHTED OR MONEY REFUNDED

¶ The Neverout is equipped with a PATENT GLASS COVERED REFLECTOR OF GERMAN SILVER, instantly removable, never loses its original brilliancy.

¶ The only perfect and reliable motorcycle lamp made.

¶ Double clamp bracket furnished, fastens lamp securely to fork of motorcycle. No danger of shaking off, and SHOWS RED REAR DANGER SIGNAL.

Sold by leading jobbers and dealers everywhere

ROSE MANUFACTURING COMPANY

933 ARCH STREET, PHILADELPHIA, U. S. A.

The Neverout complies with the laws of the various States and Municipalities

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PFANSTIEHL DUAL IGNITION

FOR MOTORCYCLES

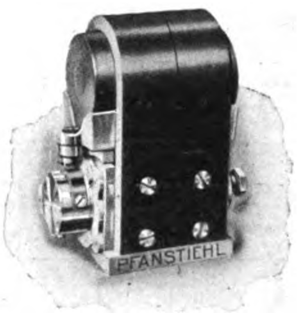
NO MORE PEDALING

Pfanstiehl Dual Magneto

FOR REAL EASY STARTING

WATERPROOF, DUSTPROOF, COMPACT, EFFICIENT, HIGH TENSION DUAL AND SELF CONTAINED.

No Outside Coil or High Tension Wire.



**Switch is placed on the handle bar
Two dry cells in the box**

Start on dry cells, run on magneto.

TWO GOOD DRY CELLS LAST A SEASON

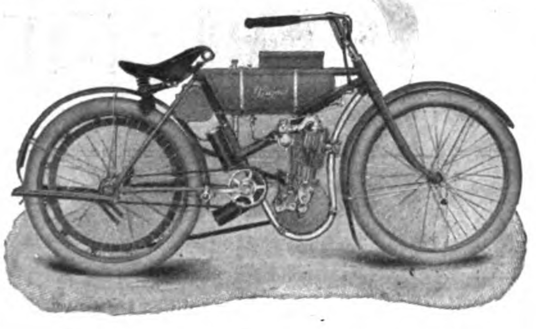
Minimum spark at the contact points, maximum spark at the plug. With the battery dead and thrown away, we guarantee an easier start than with any other magneto you have tried.

Write for Bulletin No. 11

"PFANSTIEHL" is harder to remember than STERLING but it means EVEN MORE

PFANSTIEHL ELECTRICAL LABORATORY

NORTH CHICAGO, ILL.



An Every-Day Machine For the Every-Day Rider

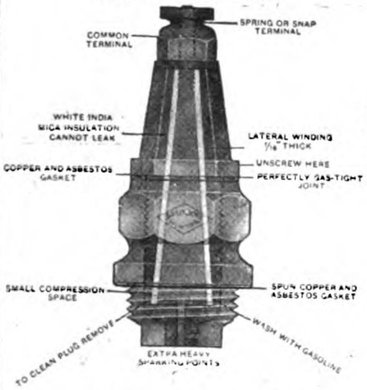
Incorporating all of the features that make for Comfort, Reliability and Genuine Satisfaction.

Our Catalog Explains

Sold by the Best Dealers Everywhere.

WAGNER MOTORCYCLE COMPANY
ST. PAUL, MINN.

WILL OUTLAST YOUR MOTOR


SPRING OR SNAP TERMINAL
COMMON TERMINAL
WHITE INDIA MICA INSULATION CANNOT LEAK
LATERAL WINDING 1/16" THICK
UNSCREW HERE
COPPER AND ASBESTOS GASKET
PERFECTLY GAS-TIGHT JOINT
SMALL COMPRESSION SPACE
SPUN COPPER AND ASBESTOS GASKET
TO CLEAN PLUG REMOVE
WASH WITH GASOLINE
EXTRA HEAVY SPARKING POINTS

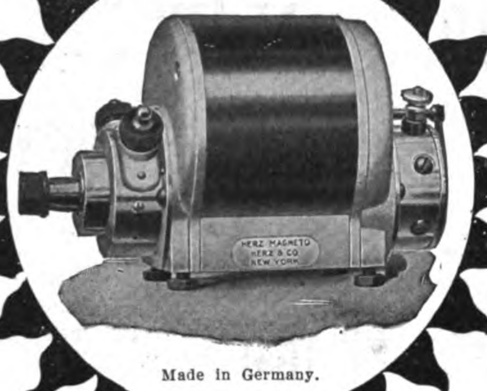
WATCH THE MOTORCYCLES THAT WIN THE RACES

You will find they always use

SPLITDORF
Motorcycle Plugs
WHY?

C. F. SPLITDORF
Walton Avenue and 138th Street, Branch, 1679 Broadway, - NEW YORK

HERZ MAGNETO


HERZ MAGNETO HERZ & CO. NEW YORK

Made in Germany.

On YOUR Motorcycle means a FAT, HOT ARC FLAME at the first ¼ turn of your pedal and ever after. It's the strongest, most efficient, lightest and most compact Magneto made.

Over 15,000 on American 1910 Motorcycles.

EQUIPMENT ON: EXCELSIOR, PIERCE, THOR, YALE, HARLEY-DAVIDSON, GREYHOUND, EMBLEM, WAGNER

Thousands of Testimonials.

HERZ means absolute dependability

Mr. E. W. Rietz says: "It's the best Magneto made. My machine will run just as slow as a battery machine and is a lot more reliable."

THE HERZ-PLUG

"Bougie Mercedes"
The Famous
STONE PLUG

Absolutely
Self-Cleaning

Proof
Against
Oil, Water,
Dirt, Soot

HERZ & CO. NEW YORK

A New and Highly Important Feature found only in the Herz-Plug Platinum Alloy 4 Point Disc ("Rolled into the Shell") Will Not Burn Away Not Affected by the Current Greatly Increases the Life of the Plug Points can be adjusted to suit the compression of any motor.

The Greatest Value in Spark Plugs Ever Offered.
Absolutely Guaranteed One Year.
PRICE, POSTPAID, $1.50

HERZ & CO., 295 Lafayette St.
NEW YORK
(Civil Engineers.) WRITE FOR NEW CATALOG.

THE
"Nightingale"
Whistle
FOR ANY
Motorcycle

Sounds a harmonious bird-like trill.
Operated from Exhaust.
Gives no back-pressure.
Attached quickly and without expense—simply clamped to exhaust pipe.
Assures right-of-way.

Made of Brass $4.00 Complete
Nickel-plated, $1.00 extra

Nightingale Whistle Mfg. Co.
1785 Broadway New York

The Only Practical
Gas Motorcycle Lamp

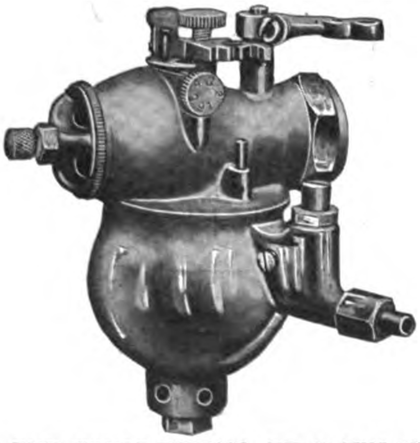
Simply perfect—perfectly simple—absolutely safe. Thousands of satisfied users the world over will tell you so. It projects an intense white light 100 feet ahead, and cannot jar or blow out. Of course it's a

Solar

Solar lamps for a dozen years have been the standard of the world. Their best arguments are the riders who use them. The bicyclist and motorcyclist who adopts Solars bids a final good-bye to lamp troubles. Send a postal for our catalog.

Badger Brass Mfg. Co. Kenosha, Wis. New York City
(57)

Heitger Model F 1910
Motorcycle Carbureter



¾ INCH FEMALE THREADS, CUT ⅔ FULL SIZE.

It has mechanical control of gasoline feed to mixture, independent gasoline adjustments for both low and full speeds, indexed adjusting screws, throttle universal, can be set to operate from either side, straight line gasoline connection, new design float chamber, can be swiveled to any position, its shape reduces splashing of liquid to the minimum, handy priming stem, improved, durable, reliable air valve, all gasoline adjusting screws indexed, and ball rachet retained, all balls and springs of bronze. ¾ inch female threads. List $10.00. Fully guaranteed.

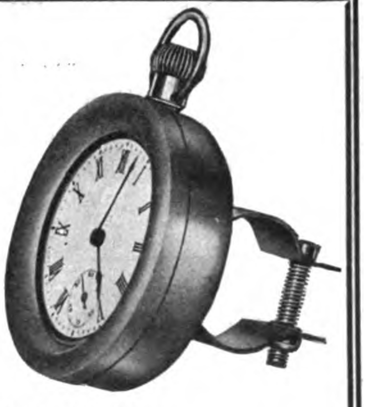
HEITGER CARBURETER CO., Indianapolis, Ind.
208 WEST SOUTH STREET

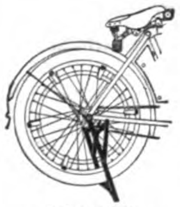
IF YOU WANT
To Sell, Buy or Exchange
GET IN COMMUNICATION
WITH
TEN THOUSAND RIDERS
By inserting a little ad in
THE MART

You'll Be Surprised at the Results

MOTORCYCLE PUBLISHING CO.
299 BROADWAY, NEW YORK

Quick Action Handle Bar WATCH HOLDER

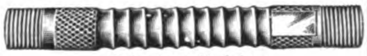




Patented 1909.
Other patents pending

Quick Action Motorcycle Stand

Raised or lowered with the foot. Locks automatically.



Patent applied for

Quick Action Motorcycle Repair Pedal

To replace a broken pedal. Fits either crank.

HENRY T. ADAMS CO.
6823 South Chicago Ave., Chicago, Ill.

TRY ALL SPARK PLUGS
GIVE THEM A FAIR TRIAL

Seemingly most spark plugs give good service with very little trouble. If once in sixty days you remove your plugs to clean them, you seem satisfied because you believe that all plugs collect a certain amount of carbon and cleaning is a necessity. Other plugs will give a spark indefinitely without cleaning. Yet each explosion of the engine means a greater accumulation of fouling matter that not entirely, but greatly, reduces the sparking strength. To get the most from your engine, the spark must be uniform and the same always. Give the many other types a trial.

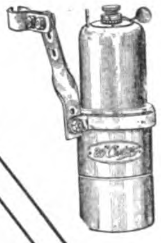
Then Try RELIANCE

"The Spark in Water Plug"

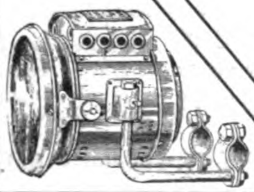
You will appreciate its value. No matter how much soot or fouling matter accumulates, it is impossible to destroy the Reliance spark—its intensity, heat and duration are the same under all and the most adverse conditions. Its construction is along entirely different lines and principles than any other plug. Sold in four types—Regular Type, $1.00; Long Type, $1.25; Mica Back, $1.25; Magneto, $1.25.

Jeffery - Dewitt Company
Spark Plug Manufacturers
DETROIT, MICHIGAN
OLD ADDRESS: 230 High Street, Newark, N. J.

LIGHTEN THE WAY

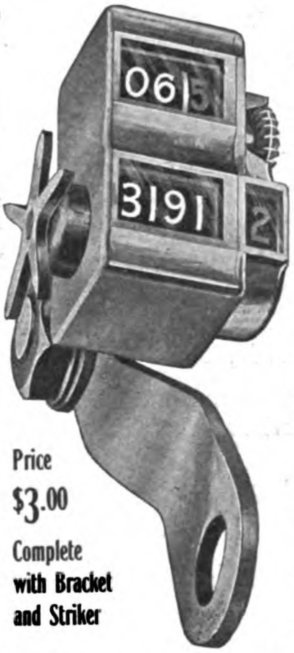


with the 20th Century tried and true, the dispeller of gloom, the light that satisfies. It will make day out of darkness for you—it will not mislead you—it will guide your way in safety. If you have some other lamp that does not kill the darkness, or that tries your temper, you will be glad we are here to serve you.



20th Century Mfg. Co.
19 Warren Street
NEW YORK

Veeder Motorcycle Trip Cyclometer



Price
$3.00
Complete with Bracket and Striker

Made heavy and durable for the hard usage it receives on the Motorcycle.

Adjustable Bracket fits all makes of machines.

Large and strong striker.

Made for 24 in., 26 in. and 28 in. wheels.

The Veeder Mfg. Co.
42 Sargeant St., Hartford, Conn.

Makers of Cyclometers, Odometers, Counters, Tachometers, Tachodometers and Die Castings

SAGER CUSHION FORK

Often Imitated But Never Equalled.

Used as standard equipment on the

YALE ***HARLEY-DAVIDSON***
NEW ERA ***CURTISS***
MARVEL ***WAGNER***
ARMAC

When purchasing these motorcycles you are sure to get **The First and Best Cushion Fork**

J. HARRY SAGER, Rochester, N. Y.

FREE COPY

Write today for a free copy of a $1.50 NEW MAGAZINE that is full of the information you should know about your Motorcycle.

PUB. BY
MOTOR CYCLE EQUIPMENT CO
HAMMONDSPORT N.Y.

The Motorcyclist
A Motorcycle Magazine

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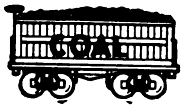

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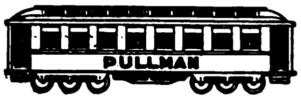

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The old kind of Motorcycle

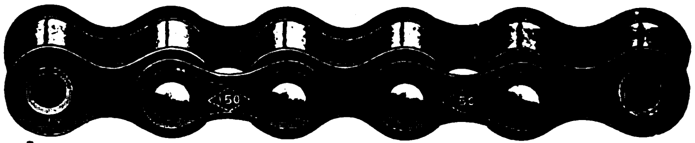
is to

THE FLYING MERKEL

THE only motorcycle with the spring frame and fork! Get catalog B. Read it. If it sounds as good to you as it has sounded to others—write us and we will give you a chance at any unoccupied territory we have.

Merkel-Light Motor Co.

POTTSTOWN, PA.



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Diamond Chains

on your motorcycle. They make smooth, quiet drives, and develop the maximum motorcycle efficiency, whether in speed contests or the steady grind of day-after-day service.

Diamond Chains represent the highest development of chain construction. They are the standard of perfection in strength, reliability and long life.

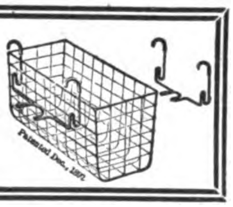
For sale by your jobber and dealer.

DIAMOND CHAIN AND MFG. CO.
251 West Georgia St., Indianapolis, Ind.

Dowe's Bicycle Luggage Carriers

Best Thing for the purpose ever put on the market. In use all over the United States. ¶ Can put on or detach instantly with adjustable hook. ¶ Good sellers because the riders all want them and the price is popular. Write for Prices.

DOWE WIRE & IRON WORKS
Louisville, - - Kentucky



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1910 RACYCLE

Agency Proposition is a Clean-Cut Money-Maker? **WE HAVE THE MACHINE** and You the Facilities to Sell it. Let Us Get Together. Write Today for Particulars.

MIAMI CYCLE & MFG. CO. Middletown, Ohio

Now's the time to advertise in

THE MART

Your readiness to sell last year's machine

3 Cents a Word

TWO BATTERY COIL!

With or Without Plug Switch. Single and Double Cylinder Types.

The most reliable and durable coil yet. Can be put in battery case with two batteries and will run you 1,000 to 1,500 miles. Write for particulars now.

MADE BY **CENTRAL INSULATING COMPANY, Lafayette, Ind.**

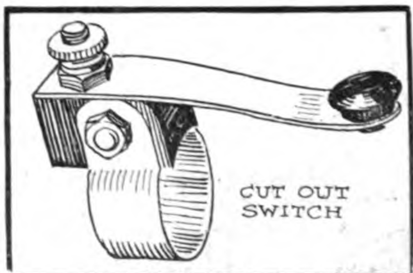
THESE VENTILATED GLOVES

are favorites with motorcyclists who prefer a short glove. They have the same superior quality and serviceability of the famous gauntlet styles of

GRINNELL GLOVES

They are sold in nearly every city in the United States. See them at your dealers. If he doesn't handle them send us his name, size and style you prefer and we'll send a pair on approval.

MORRISON RICKER MFG. CO., 27 Broad Street, Grinnell, Ia.



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GET OUR NEW CATALOGUE

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Magneto Cut-outs, 75c.; Covers, $1.25; Whistles, $3.50 up; Sirens, $5.00 up.

FULL LINE OF PARTS AND REPAIRS

F. B. WIDMAYER CO., 2312 BROADWAY, NEW YORK

The Absence of Vibration makes it pleasurable to ride

The Pierce Four Cylinder Motorcycle

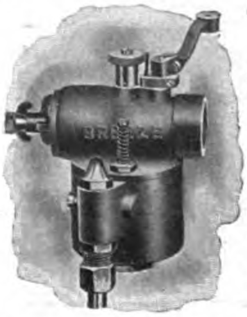
Besides this Vibrationless element, the Pierce Four is replete with numerous superior features, such as:

Four Cylinder Engine Shaft Drive (enclosed) Magneto Ignition Two-speed Transmission Force Feed Automatic Oiling System Free Engine Clutch Large Tubing; no Tanks

THE PIERCE SINGLE CYLINDER

motorcycle is like the Four in smooth and easy running qualities. This model represents the most advanced ideas in Single Cylinder Motorcycle design and construction. Ask for Catalog "G."

THE PIERCE CYCLE COMPANY, - Buffalo, N. Y.



The Breeze Motorcycle

CARBURETERS

made of polished aluminum, small parts of nickelled brass. Weigh fourteen ounces each, price $10.00. Special connections for popular machines included in price; 80 to 95 miles per gallon under road conditions. Write for special literature. Send 10 cents for our Engine Trouble Text-book. 56 pages.

Have you seen our five ounce strainer? Price, $1.00

BREEZE CARBURETER COMPANY

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ILLINOIS INDIANA WISCONSIN

AGENTS WANTED IN EVERY COUNTY

1910 Splendid Greyhound, to the front at a single bound. It sells itself—A money maker—Get busy quickly. Secure a valuable agency.

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I sell at retail in Chicago and unoccupied territory.

TRI-STATE DISTRIBUTOR
923 WEST JACKSON B'VD. CHICAGO

S. D. MOTORCYCLE

The most prominent and important feature of the S. D. Motorcycles is a shaft-drive system of a mechanism that has been brought to the highest perfection yet achieved in a motorcycle transmission. Write for our circular matter. Good Agency proposition.

S. D. MANUFACTURING CO. 155 RIDGEWOOD AVE.
BROOKLYN, N. Y.

The "STANDARD"

THE INSTRUMENT OF PERMANENT ACCURACY

ONLY MOTORCYCLE SPEEDOMETER

WITH A STEADY HAND

The Police of several cities have replaced other speedometers with "STANDARDS," because "STANDARDS" remain accurate.

Special Fittings for every Spring Fork Machine.

Send at once for new catalogue.

Our New Models have Trip as well as Season Odometer without extra charge, and you have a choice of either 60 or 80 mile dials at the same price.

We can now furnish fittings for the following 1910 Machines:

Indian, Excelsior, Harley-Davidson, Yale, Curtiss, Marvel, New Era, Racycle, Emblem, Reliance, American, Reading Standard, M. M., Merkel, Thor, Pierce, Greyhound, Royal Pioneer, Minneapolis, Wagner, Crouch, N. S. U., F. N. and S. D.

STANDARD THERMOMETER CO., 65 Shirley St., BOSTON, MASS.

20 25
TRIP
MILES PER HOUR
10 20 30 40 50 60
TOTAL
1 3 5 7 4
STANDARD
SPEEDOMETER
PARKER MFG. CO. BOSTON U.S.A.
PAT. APPLD. FOR

S. G.
RUBBER BELTS

EVERY veteran who has had the experience will tell you that for all-around satisfaction nothing can beat the **SHAMROCK GLORIA BELTS.**

They need no attention, absolutely will not slip on the steepest hills and rain or mud will not trouble them in the least.

Let's tell you more.
Write for Booklet "M."

N. S. U. MOTOR CO.
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PLACE YOUR ORDERS NOW FOR THE 1910 EDITION OF
"Construction, Management and Care of Motorcycles"

Out in a Few Days
25 Cents a Copy

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Excelsior and Harley-Davidson Riders
EQUIP YOUR MACHINES WITH
OUR VALVE SILENCER 50c
Postpaid with full instructions
AUTOMATIC MACHINE CO.
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We Will Sell You at Wholesale Agents' Price, One AMERICAN MOTORCYCLE if we haven't an agent in your city. We want our machines introduced in every town. We also want live agents and offer the best money-making proposition on American Motorcycles and American Bicycles. Write us—do it now.

AMERICAN MOTORCYCLE CO.
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An interesting, illustrated, practical and indispensable monthly magazine for those who make, use or sell gas or gasoline engines. 50c. per year. Sample copy, 10c.

GAS ENERGY COMPANY
24 Murray Street, New York

M M
Motorcycles in Stock

4 H. P. Single Cylinder, $225
7 H. P. Twin " $300

Both with Bosch Magneto Ignition

GEO. P. JENKINS
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GOODYEAR STRONG FABRIC MOTORCYCLE TIRES WEAR LONGEST.

They're easiest to fix. Cost least for upkeep. Tough yet resilient and easy riding. Outwear several pairs of ordinary tires. Can be permanently repaired, if jagged by nails, etc.

THE GOODYEAR TIRE & RUBBER CO.,
Akron, Ohio.

THIEM 1909

If you or your friends or your friends' friends are interested in the latest and best improved Motorcycles, regardless of how highly you regard other makes—do not purchase a Motorcycle until you have written us for Our Latest Catalogue describing in detail, all about Our New and Original Models. Best Agent Proposition to Date.

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The American Stepney Company

would not now be supplying almost all the motorcycle manufacturers with rims if it were not for the fact that they have conclusively proven to be entirely satisfactory.

For the benefit of the trade in general we are carrying in our Chicago and New York warehouses a large stock of assorted sizes for immediate delivery.

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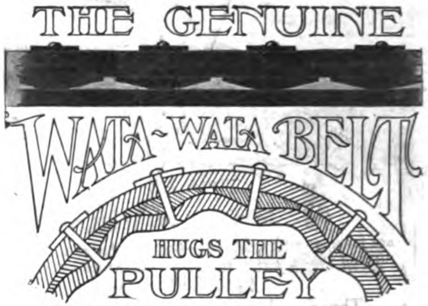

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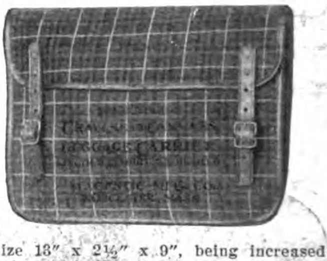

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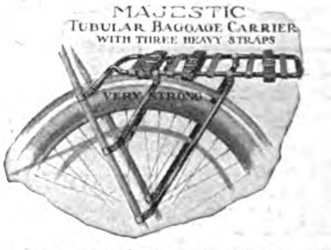

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MOTORCYCLE ILLUSTRATED

Vol. V. No. 11. June 15, 1910

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CALIFORNIA ENDURANCE RUN A HUMMER

Reliability Test Conducted by the Los Angeles Club Finished Perfectly by Fourteen of the Forty Entrants—Many Had Remarkable Experiences

SEVENTEEN of the forty Los Angeles motorcyclists who started a recent Sunday on their annual endurance run, managed to reach the local club house for the finish. The other twenty-five had returned by train or had given up the contest along the route and concluded to try a little touring. Of the number who finished fourteen had perfect scores.

A winding route had been selected between Los Angeles and Santa Barbara and extending north of Santa Barbara seventeen miles to Naples, near Gaviota, and return—a total distance for Sunday of 151 miles. Many bad country roads were encountered and the way was frequently lost by the motorists.

On the return journey, which began at Santa Barbara at 6 o'clock the following Monday morning, the route lay again over the Casitas pass, through Ventura and thence south to Oxnard and from there across country to San Fernando. In this latter stretch were seventeen miles of plowed road, so bad in fact that the riders took to the barley fields to get out of the deep sand and were bounced and bucked from side to side for nearly an hour. It was here that several gave up the contest and concluded to take it easy and save their spinal columns.

Of the forty riders who started on this, the fifth annual contest of the Los Angeles Motorcycle club, only five could be classed as old-timers—that is men who have won gold medals in past runs. Notable among the old-timers were J. Howard Shafer, C. M. Frink and Mrs. Frink. Shafer and Frink came through with perfect scores, the former winning his third and the latter his fifth gold medal for his skill in taking the roads. Lightcap also will become the possessor of a third medal for his showing.

Months ago it was proposed to have a combined contest, pleasure run and summer tour south over the Mexican border to the one large town in Lower California, Ensenada. Details were partly arranged by Charles Fuller Gates, the F. A. M. representative, when many of the contestants found that they could only get away for Sunday and the Monday holiday of May 30. This necessitated a change and the over-border run was given up and a new route to the North chosen. In 1908 and 1909 San Diego on the South had been the night control, with the coast route used on the down run and the inland road for the return. This route was used this year by the San Diego and the Santa Ana clubs.

The 1910 route was in part the same as was used several years ago on the run to San Francisco. Leaving the club house at 29th and Main streets, the route was north on Main to the river, then crossing to the east side the San Fernando road, an old mission highway, was followed to the town of that name and by the famous old mission, two miles to the west of San Fernando village. Here the cross valley road to Santa Susanna pass, above Chatsworth, was taken and through the pass to the Simi and then down past Somis into the broad Santa Clara valley at Camarillo, where El Camino Real, the 1,000 mile long coast road, was reached. El Camino Real, which is now marked with mission bell monuments, designed by Charles Fuller Gates, was then followed through the beautiful Casitas pass with its two three-mile climbs and thousand year old oaks, decorated with hanging festoons of lichen, narrow turns and deep precipices, out into the Carpenteria and Piedmont region to the Santa Barbara asphalt boulevard.

At Santa Barbara the city had removed the speed limit and the boys were allowed to dash through the beautiful Channel City at a mile a minute on their way to the little old village of Naples, some eighteen miles up the coast, where was located the turning control to make the day's ride 150 miles. Then from Naples, along the sea, back to Santa Barbara, where the night control was situated, the riders "beat it" hard. The early riders, some with 7 h. machines, actually made better than 65 miles an hour, and Graves, the world beater, on his big Merkel, used up seven inner tubes, yet had completed the day's work at 1:33 p. m. and made all controls with time to spare at each.

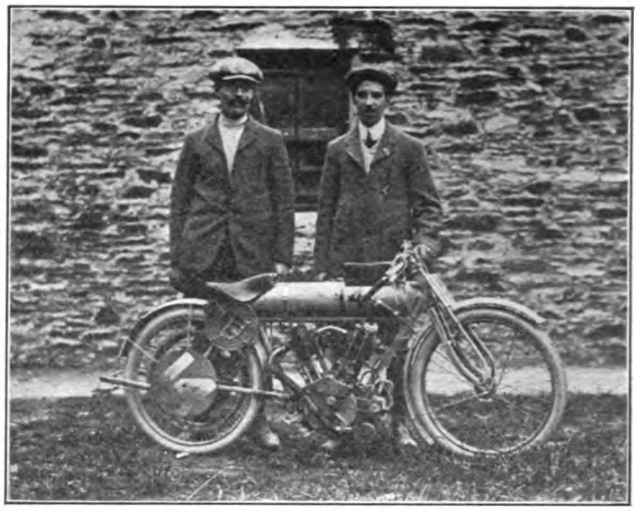
Long towards sundown, when the last starters were "beating it" back from Naples to the Channel City, with its wonderful old mission, which people go half way around the world to see, messengers met them with word that the chief of police had put back the speed limit, as the whole city was going speed-mad and every rider in Santa Barbara was out racing on the asphalt streets that run down from the big mission on the hill to the boulevard along the ocean front.

Sunday night all the visiting motorists, contestants, officials and camp followers, with the bunch which was just forming a local club in Santa Barbara, had a big feed together, and the jolly mayor, Lloyd, who used to be an all-around athlete, was there, as was the good-natured chief who had told the boys to fear nothing and "open her like h—" when they roared up State street from the long coast boulevard. There were jolly speeches and Mayor Lloyd made a

(*Concluded on page 9.*)

COLLIER BROTHERS FIRST AND SECOND IN THE TOURIST TROPHY RACE

English Classic won by " Native Sons " on Matchless Machines—Inner Tube Troubles Made Victory Impossible for Riders of Indian Motorcycles.



CHARLIE AND HARRY COLLIER.
First and Second in the Great Tourist Trophy Race.

THE great annual English road race for the Tourist Trophy resulted in at least one big disappointment. Last year Wells, the Hendee manager in England, was able to enter only two machines and, riding one himself, had to withdraw after one lap owing to injuries received the day before. G. Lee Evans, on the other, fluttered the English trade dovecotes considerably, leading the entire bunch for six rounds. He then stopped to replenish his tanks, lost some time in the process, and found his engine pulling less well for the rest of the race; still he finished second, averaging 48 miles per hour, and was beaten by Collier, the veteran English racing crack, by only four minutes. This year Wells had a team of eight crack riders, and several of them were expected to go close, if they did not actually win; but as luck would have it, they got in a special batch of inner tubes to use in the race. The supply was limited, and so the tubes were not tested in the preliminary practice. In the race all of them gave trouble, and destroyed the rosy chance which the Indian on its merits undoubtedly possessed. Before the race the Indian team had been shorn of one of its fastest men. Poor Alan Woodman had a puncture early one morning in a practice spin, and after making a hasty repair had the tire burst when he was doing 70 miles per hour down a fall in the road. He was hurled against a stone wall, and had a leg badly mangled. When he was removed to a hospital, gangrene set in, and the limb had to be amputated at the thigh; mercifully the young New Zealander's tough constitution is pulling him through.

The Indians lost their scalps early in the race. C. B. Franklin, a crack son of Erin, with long experience, had a tube go twice in the first five miles, and had to fit a new tube and cover at the six mile depot, where Wells and Hedstrom took him in hand. Bennett, a track expert. hit a wall in Glen Helen on his first lap, and scarified his knee considerably. Lee Evans, last year's runner up, had four punctures, and was game enough to finish, though back in twenty-first place. D. R. Clarke's tires lasted out three very fast rounds of 20.13, 19.39 and 19.23; he was gaining pace every lap when his treacherous tire went, and he was lucky to escape injury. Bentley shot off like a shell from a six-inch gun, put up a fast lap (19.27) and was halfway through a faster when, coming down off the mountain top at 80 miles per hour, his back tube split for twelve inches. How he stopped without a cropper beat the crowd, but he did it somehow—nerve of iron, and wrists of steel. Moorhouse, probably the fastest man in the team, punctured in his first lap, reeled off two more laps like forked lightning, and burst a cover to ribbons the fourth time round. J. R. Alexander, a Scotch amateur, was the only Indian rider whose luck was in, and he could not go the pace, finishing fourteenth without any special trouble. The Americans must now reserve themselves for another year, when there are likely to be two distinct races for single and twin cylinders.

The Race Described.

Owing to the tire failures of the Indian team the event was robbed of its chief interest and international character almost from the start. The prime favorites were three Matchless twins of 5 h., with Jap engines and overhead valves, ridden by Charlie and Harry Collier, and young Colver. These men ride as a team. Charlie takes all risks, Harry takes half of them, and Colver none. If the man in front has trouble, the men behind quicken up. Against them were two dangerous teams—eight Triumphs, single cylinders, ridden by five amateurs and three pros. These were certain finishers, but too slow to beat any twin which could get through non-stop. The sensational team was the Bat quartette, all amateurs, invincible for dash, but unlikely to get round all the dangerous corners safely. One Bat man struck trouble early, another had foolishly drilled out his pulley till it split; but after four laps the other two were first and second, and had each smashed all records for a fast lap. In the fifth round they both went out. Bowen hit the wall at a corner, and cracked his frame. He omitted to note the damage, went on, and had his machine fall in half coming down from the mountain at 80 miles per hour; he was thrown in the gorge unhurt. Bashall on the other had a narrow escape with his life. He was filling his gasoline tank at one of the depots, a silly rule compelling the riders to do this themselves. His wrists were quivering and he spilt the inflammable spirit on his redhot exhaust pipe. The machine blazed up and was destroyed inside five minutes. Bashall's jersey got alight, but the police rolled him in their capes and put it out. After this the Colliers had the race to themselves. Jones on a Premier and Oberlander on an N. S. U. were fast for a few laps, but both had subsequent trouble, and the Triumphs were not fast enough to hustle the more powerful twins. A list of finishers is appended below.

Hedstrom says the course is the most dangerous thing in the way of a race track he has ever seen. It consists of a fifteen-mile 6½ furlong lap, triangular in shape, to be covered ten times. It has very few straight stretches, eight corners which cannot be taken faster than a crawl, a long winding hill with a 10 per cent. grade, and several ugly skew bridges. The regulations are simple in the extreme, the machines being any size or design the riders like, provided they have good brakes, a muffler, and engines limited to 500 cubic centimetres for singles and 670 cubic centimetres for twins. A feature of the race was that for the first time the two-speeded Scott machines with two-stroke engines succeeded in completing the course.

The Finishers.

	Hrs.	Min.	Sec.
1st, C. R. Collier, 5 h. Matchless, 2 cyl	3	7	24
2nd, H. A. Collier, 5 h. Matchless, 2 cyl	3	12	45
3rd, W. Creyton, 3½ h. Triumph, 1 cyl	3	17	58
4th, J. W. Adamson, 3½ h. Triumph, 1 cyl	3	17	46
5th, J. Scriven, 4 h. Rex, 2 cyl	3	23	35
6th, J. Marshall, 3½ h. Triumph, 1 cyl	3	24	47
7th, H. L. Cooper, 3½ h. Triumph, 1 cyl	3	25	24
8th, W. F. Newsome, 3½ h. Triumph, 1 cyl	3	26	35
9th, F. Phillips, Scott two-stroke, 2 cyl	3	31	47
10th, H. V. Colver, 5 h. Matchless, 2 cyl	3	36	40
11th, C. E. Murphy, 3½ h. Triumph	3	37	15
12th, W. Heaton, 5 h N. S. U., 2 cyl	3	37	46
13th, H. Smith, 3½ h. Triumph, 1 cyl	3	40	15
14th, J. Alexander, 5 h. Indian, 2 cyl	3	42	49
15th, W. McMinnies, 3½ h. Triumph, 1 cyl	3	45	16
16th, H. R. Fowler, 4 h. Rex, 2 cyl	3	45	48
17th, J. Slaughter, 3½ h. Ariel, 1 cyl	3	48	00
18th, D. C. Bolton, 4 h Rex, 2 cyl	3	51	45
19th, J. Woodward, 4 h. Rex, 2 cyl	4	5	51
20th, Baxter, 4 h. Rex, 2 cyl	4	7	49
21st, Lee Evans, 5 h. Indian, 2 cyl	4	9	16
22nd, A. Alexander, 3½ h. Rex, 1 cyl	4	10	15
23rd, W. Grange, 3½ h. Rex, 1 cyl	4	10	37
24th, E. S. Myers, Scott two-stroke, 2 cyl	4	16	50
25th, D. Brown, 3½ h. Humber, 1 cyl	4	17	30
26th, S. Perryman, 5 h. Blumfield, 2 cyl	4	31	8
27th, A. Sproston, 4 h. Rex, 2 cyl	4	35	6
28th, P. Weatherilt, 3½ h. Zenith, 1 cyl	4	41	53
29th, F. W. Chase, 3½ h. Centaur, 1 cyl	4	45	59

Total distance, 158 miles, 1 furlong.

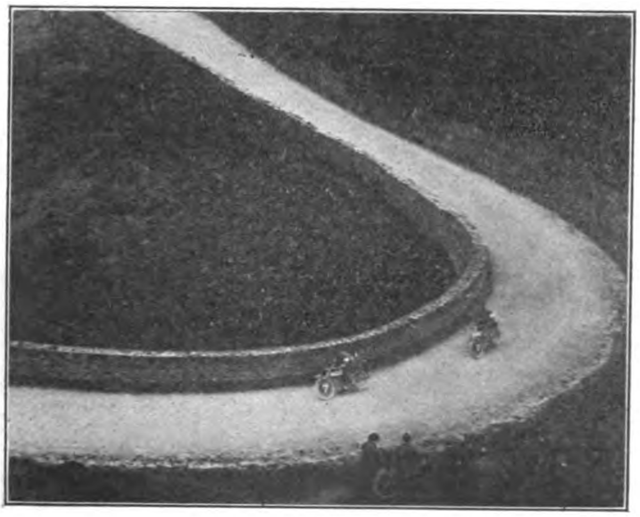
Fastest lap, H. H. Bowen, 5 h. Bat, 17 min. 51 sec.

75 started; 29 finished.

* *

BROKE BADGER STATE RECORDS.

RECORDS for Wisconsin's half-mile dirt track were broken at Manitowoc on Decoration Day. Edward Nelson made a mile in 1:11⅖, which is ⅗ second lower than the best previous State record for that distance. Nelson also won the five-mile event, his time being 6:27.



Devil's Elbow, Tourist Trophy Race.

GOOD RACING ON THE FORT ERIE DIRT TRACK

TWO miles under a minute and other sensational racing was the result of the meet at the Fort Erie race track Saturday, the 4th inst. The fifty-mile championship event was cut to twenty-five miles, with the consent of the riders. H. R. Ganson of Buffalo, won, beating a field of nine starters; E. Stauder, Rochester, second; and Winfield Graham, third. Walter Goerke, of New York City, was forced to quit in the ninth mile, and Joseph R. Diamond dropped out in the 22d mile. In the running of the event Ganson, the winner, scored a mile in 59⅕ seconds. The 25 miles were run in the remarkable time of 26:05. Goerke, in the fourth race, reeled off one circuit of the oval in 57⅘ seconds.

Rochester showed a rider of sterling caliber in E. Stauder, who did handsomely for his city and club. A very unfortunate start in the fourth event put him out of the running, or he might have kept Goerke and Ganson busy. As it was, he took third place after a half-lap handicap. One of the sensations of the meet was C. M. Logan, who, making his first track appearance with an ordinary machine, rode magnificently.

Ganson's work throughout showed him the master of the sport that he is so well known to be. Sustaining the only accident of the day, Ganson was thrown from his machine in a collision in the sixth event, but picked himself up, remounted, half a mile behind the field, and overhauled the bunch to win a most exciting victory.

In winning the fifth event, Hanks took first bid on the new club cup, which must be won three times in succession to be claimed.

The meet was run off in excellent fashion by the following corps of officials: Referee, Dr. Charles Berrick; judges, William O. Cramp, O. L. Neal, William Chedeayne; timekeepers, George McCourse, A. A. Seeger, William G. Schack; starter, Louis Wipperman; clerk of the course, Edward G. Schultz; scorers, Albert Peters, B. E. Neal, Charles Hodge; umpires, Robert Haber, Otto Peters, B. Paul; announcer, A. A. Seeger. The summary:

Ten miles, open for machines not exceeding 30½ cubic inches in piston displacement. Restricted to private owners—E. Stauder, first; A. J. Castle, second; E. J. Hanks, third. Time, 11:43⅕. Also started, F. Stein, William J. Maisel, F. Schudt, George H. Ellsworth.

Ten miles, open for machines of 61 cubic inches in piston displacement and under. Restricted to private owners—E. Stauder, first; C. M. Logan, second; Winfield Graham, third. Time, 10:22. Also started, F. A. Schwegler, Joseph H. Diamond, F. Schudt, George H. Ellsworth, Forsythe, Straub.

Ten miles, open for machines of 45 cubic inches in piston displacement and under. Restricted to private owners—C. M. Logan, first; E. J. Hanks, second; A. Weil, third. Time, 11:03⅗. Also started, William J. Maisel, F. Schudt.

Fifteen miles open, trade riders—Walter Goerke, first; H. H. Ganson, second; E. Stauder, third. Time, 15:09⅖. Also started, C. M. Logan, Winfield Graham, F. A. Schwegler, Joseph H. Diamond, Young, Forsythe, Dayrock.

Ten miles, single-cylinder machines owned and ridden by members of the Buffalo Motorcycle Club—E. J. Hanks, first; F. Schudt, second; William J. Maisel, third. Time, 12:34.

Ten miles, for machines of more than one cylinder owned and ridden by members of the Buffalo Motorcycle Club—H. H. Ganson, first; Winfield Graham, second; Joseph H. Diamond, third. Time, 11:09⅖. Also started, F. A. Schwegler, C. M. Logan, A. Weil.

Twenty-five miles open, trade riders—H. H. Ganson, first; E. Stauder, second; Winfield Graham, third. Time, 26:05. Also started, George H. Ellsworth, E. J. Hanks, F. A. Schwegler, C. M. Logan, Joseph H. Diamond, Walter Goerke.

LAMP HINTS AND WARNINGS

By A. H. BARTSCH

WITH the summer at hand and long tours mapped out, one naturally considers his lamp outfit, especially if he is to some extent an enthusiast for night rides. Of course, a motorcycle for country use is unsafe without a thoroughly reliable lamp. The separate generator and lamp outfits appeal especially to me, as a lightweight lamp of first class quality, with separate generator, will last indefinitely. The former is best attached to the handle bar or stem, not to frame head or forks, as one thus gets the benefit of the light when turning corners. It is also better protected in this position from accident through colliding or skidding.

I would suggest that the burner be of the type that screws into its seat, thus eliminating the chances of its unexpectedly popping out. The reflector should be detachable, as this aids considerably in keeping it bright and clear. The glass or front lens should also be easily removable. The clip for holding the lamp to the bracket should be strong and solid, without springs, and have at least one set screw. Care should be taken also that the lamp sends its rays up the road only, and not into the driver's eyes. When the generator can be put in some out-of-the-way position, such as on the seat post pillar between the frame tube and the rear mudguard, the opportunity should be taken advantage of, but not in such a way as to invite a puncture in the long rubber tubing, allowing the precious gas to waste itself on the night air.

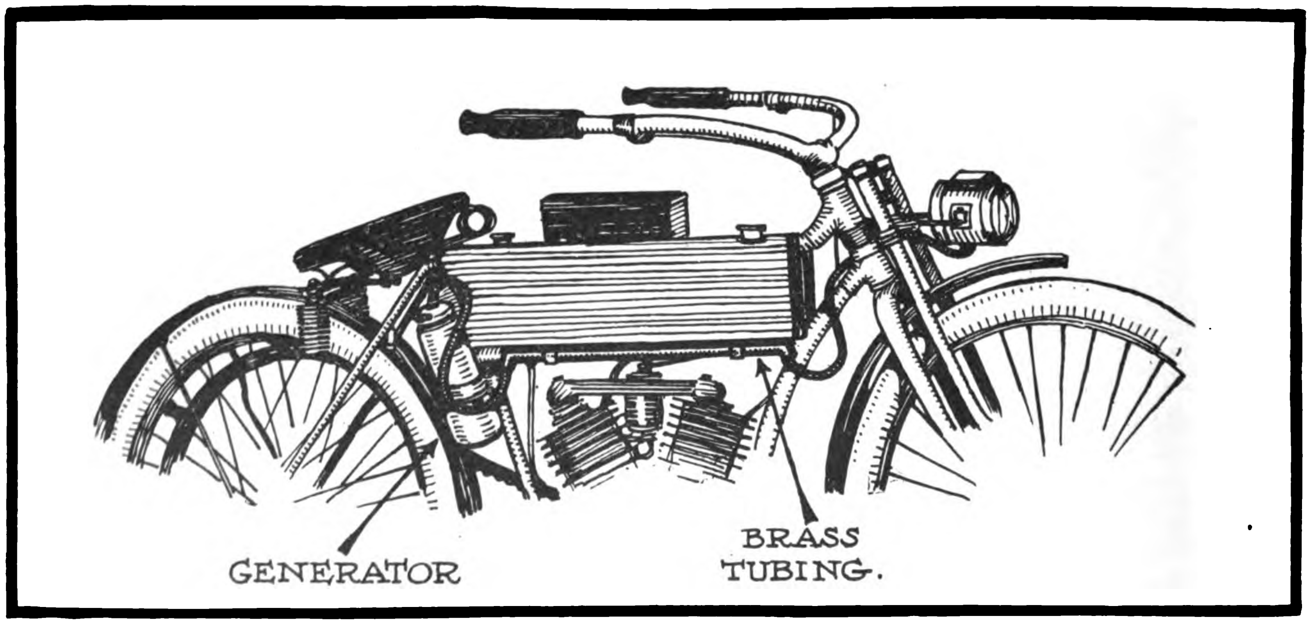
Having once been caught in this predicament, I sought some better method of carrying the gas from generator to lamp, and bought 3 feet of ⅛-inch brass tubing (not copper), bound it with insulating tape to the frame tube running under the tank, and made the necessary couplings with stout ribbed rubber tubing, or, better still, linen reinforced air pump hose. Since then, I have experienced no trouble, and the attachment looks as neat as could possibly be desired.

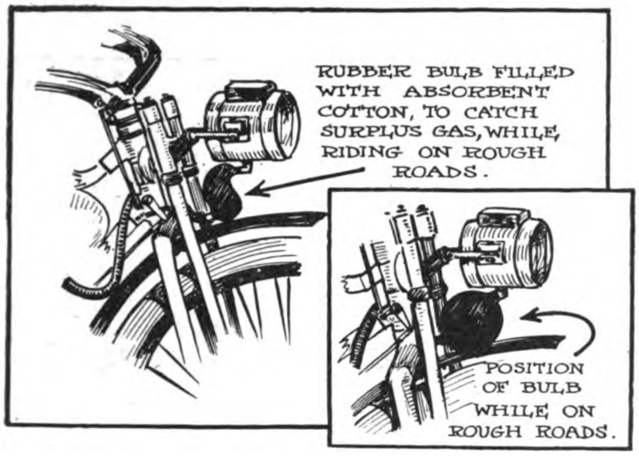
In riding over rough roads, or after hitting a large stone at top speed, my lamp would flare up fiercely, necessitating the use of my brakes and some vivid language. This inconvenience was soon done away with by fitting a soft rubber bulb between the lamp connection and the hose or main line, which would expand under gas pressure. Consequently the burner received an even pressure even when the machine was being driven over the roughest roads. These rubber bulbs can be obtained at almost any auto supply house, where the necessary metal connections can also be had.

I suppose most riders know of the annoyance of finding the burner stopped up with soot, and in the absence of a fine enough wire, have been puzzled as to what could be done. In cases of this kind I resort to as big a foot pump as possible, and with a few swift, hard strokes can generally dislodge the stubborn particles. To prevent further occurrences of this nature, I stuff a small quantity of clean, absorbent cotton into the bulb, which will arrest any carbide dust that might find its way from the generator. I never allow my lamp to burn out, but always blow out the flame or pinch the tube and let the gas escape. This prevents sooting of the burner and keeps the impurities from which a dying acetylene flame is laden, from stopping the fine passages.

It sometimes happens that the rider who carries an extra burner feels like kicking himself when caught thirty miles from home with a plugged burner that refuses to be cleared, and, when resorting to the spare, finds it a thread or two too short so that even when it is screwed down tightly, the flame persists in shooting out underneath, threatening to crack the front lens or smoke the reflector. Of course red lead would fix it, but such luxuries are not easily found away from a plumber's shop. Tire tape and mud may hold for a time, until one finds a hotel or house where common soap, used as a paste, may be found as satisfactory an emergency repair in this instance as for stopping gasoline tank leaks.

Cleanliness is the big factor in keeping an acetylene lamp in successful working order. Some riders, I notice, never clean their generators, and continue to ride with a dust laden charge, which, on account of being in contact with the air, becomes spent, and consequently will give no gas when the inevitable hour of need comes, or clog up the tubes and burners so that it is impossible for the gas to reach the burner passages, even should some of the carbide still be good. Always clean the generator after use, removing such of the carbide as can possibly be sifted, so that the hard and good lumps may be retained. Submerge the container in water and clean out thoroughly with a screwdriver, dry per-




RUBBER BULB FILLED WITH ABSORBENT COTTON, TO CATCH SURPLUS GAS, WHILE RIDING ON ROUGH ROADS.
POSITION OF BULB WHILE ON ROUGH ROADS.

fectly and recharge, if necessary, immediately, or keep the carbide in air tight tins until needed. When charging a generator for a tour, I cut a blotting paper gasket or cover to place over the carbide so as to keep out the air. I use blotting paper so that when I turn on the water it will readily find access to the carbide. Another method to keep carbide fresh and free from dust while en tour, is to coat it with kerosene; this, however, has its drawbacks in that it takes quite a while for the water to become effective. However, if proper precautions are taken in the way of cleanliness, considerable trouble will be saved in finding words to express your indignation.

One of the greatest drawbacks of motorcycling is that the punctured tire still remains. When a puncture occurs during a dark night ride, it is doubly terrifying. A tip which I learned during an especially dark and misty night after receiving a horrible gash in my rear tire, was to have the hose connection, from my lamp to the generator, of goodly length. An overabundance of care in order to have a neat-looking mount left me with just enough hose to prevent removing my lamp from the head of the machine. Consequently, I could shed no light on the rear wheel without dismantling the entire lamp outfit. Now I ride with the hose connection to the lamp a foot or two in length, wound around the frame and out of the way, so that I could hang my light anywhere in a minute's time.

Many times when I have been held up in the country by a heavy shower and the absence of my rubber coat made it necessary to return home after dark and through a mist laden atmosphere which my lamp would not peretrate, I would await with trepidation a collision with some lightless carriage or swift moving auto coming in the opposite direction. Strange as it may seem, a white handkerchief tied over the front of your lamp helps the light to pierce the fog.

Often, when entering a town, I noticed the glare of my gas lamp would cause considerable inconvenience to approaching horse-drawn vehicles and pedestrians, who became rather confused by the dazzling light. Now, when going into larger towns and cities where there is considerable evening traffic, I open the door of my lamp, put a piece of thin, brown paper over the opening and close the door again. This produces a dimmed light, sufficient to show me the way without dazzling anyone. This tip must be observed in large cities, such as New York, where the law does not allow the use of acetylene lights.

* *

SIXTY-FIVE riders made the run from Indianapolis to Blue Bluffs a week ago Sunday and enjoyed a fine outing as guests of the Hearsey-Willis Company. There would have been a larger number in the party had it not been for the fact that the trip was called off Saturday because of the threatening weather and a second announcement was made that the party would make the run to the Bluffs. An elegant dinner was served.

HOW TO HOLD A MOTOR GYMKHANA.

THE motorcycle gymkhana, which was originally looked upon as a fantastic form of amusement, not worthy to be taken at all seriously, has undoubtedly gained some ground of late. It has not, and probably never will, become a serious rival of contests which have obtained the greater popularity, such as hill-climbs, etc., and many people are disposed, even now, to regard it as somewhat of a joke.

Most people have very hazy notions regarding the holding of gymkhanas of this kind, and to enlighten them we have prepared a summary of events which could be made to constitute the program for such an affair. The program consists of ten events, among them the following:

Potato Race. For Cyclists.—Competitors are given a certain number of potatoes and have to drop one in each of a similar number of flower pots placed at intervals round the track. In the event of a potato falling outside the pot, the competitor to dismount and place same in, resuming his journey to the next pot, until he has disposed of all the potatoes handed him. He then continues, and has to pick each potato up, returning to the starting point. The first competitor home wins, provided he returns to the judge all his potatoes.

See-Saw Race. For Motorcyclists.—At intervals around the track planks are placed, balanced over bricks. Competitors, on being started, have to ride to plank, straight over same without dropping off plank, back to starting point, where they have to pick an apple from a bucket while on their knees, hands behind back, without in any way touching the bucket. Resuming their journey round track, over planks once more, they have to stop at winning post between two given lines. First home wins.

Tilting at the Ring. For Motorcyclists.—Suitably sized rings to be suspended on hooks which are hung at the end of cords from cross bars at various points round the track. Each competitor should be handed a lance or bamboo rod, not too stiff for preference. He has to ride round, endeavoring to secure as many rings as possible. In this event there should be a time limit, competitors exceeding same to be disqualified. Competitor who has the most rings at the finish to be winner. In the event of a tie, the faster competitor to win.

Needle Threading Race. For Motorcyclists.—Competitors start riding part round the track, stop, pick a needle from table, proceed for further distance, taking up piece of thread from table, return to starting place, where they hand a needle to lady, she holding same while competitor threads it (holding his machine). On threading needle, take same from lady, and ride once round track to judge. First competitor home, with needle properly threaded, takes the prize.

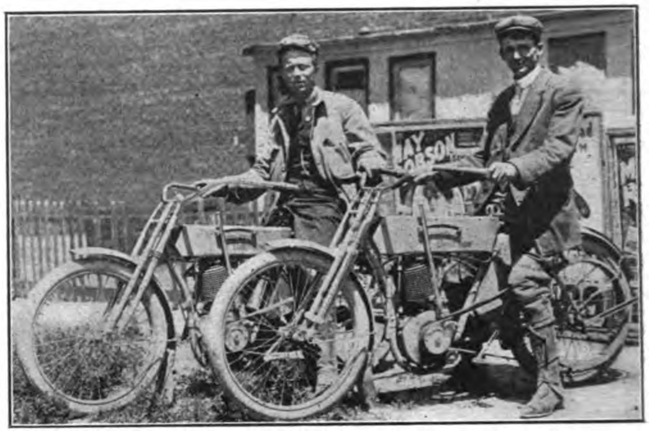
Medley Race for Motorcyclists.—This event is usually shown on the program by whatever club is running the event, as their medley for motorcycles. Competitors must run their engines for about a minute before starting in this event, so that they are fairly warm. On being told to start, each competitor rides to a point, picks up wrench from table, then proceeding to starting place, where each takes out his spark plug and runs with same in his hand to center of track, where he changes it for another (points of which latter have been carefully closed together by the secretary, without the competitor's knowledge). They are then handed a garment in a bundle of clothes which they have to put on, run back to the machine, place the changed plug in position firmly, ride on to a point where a lady awaits them, who ties a sash around competitor's waist, while competitor ties a ribbon, which she hands him, round her neck, and then proceed on to winning post. The first home wins. Sparking plugs to be tight to satisfaction of judge before and after this event. In all events there should be a rule that the engine must propel the cycle throughout, and that pedaling be not allowed beyond a certain distance, say 10 yards.

GREAT RACING IN 112-MILE CONTEST OVER COLORADO ROADS

DRIVING their Harley-Davidson machines even faster than the twins which covered the same route, Walter W. Whiting and S. W. Wunderle captured first and second places in the 112-mile road race conducted under the auspices of the Denver *Times* Decoration Day. The professional race was won by Joseph Wolter, on a twin, although his time, 3 hours 32 minutes and 38 seconds, was nearly sixteen minutes slower than that of Whiting and about seven minutes slower than the period in which Wunderle made the distance. The test was one of the most severe to which a machine has ever been put, and the performances of Whiting and Wunderle on their single Harley-Davidsons were nothing less than epoch-making.

The route was from the *Times'* office along Welton to Nineteenth street, thence to Champa street and along that thoroughfare to Downing street to Thirty-third avenue to High street to Thirty-eighth avenue across to Fortieth street and along York to Forty-seventh street. The railroad was followed through Swansea, the competitors crossing the Burlington & Missouri and Union Pacific tracks to the Brighton road, upon which they traveled in a northeasterly direction past the Model and the Nine-Mile House through Henderson, Barr, Brighton, Fort Lupton, Plattsville and Evans to Greeley, entering Greeley on Eighth avenue, the turning point being the Scott Cycle Company's store. The return trip was over the same roads, the finish being in front of the *Times'* office. While the roads were in excellent condition, generally speaking, there were a number of rough places and bad stretches where Glenn Boyd, Bradinaw and Clayton were thrown from their machines and incidentally out of the race, although none of them was more than slightly hurt.

Whiting led practically all the way from the start. He made pace until when nearing Fort Lupton, Cassaday, on an Indian, passed him. The latter, however, maintained his lead only for a brief period. Whiting again assumed first position before he reached Greeley and stayed in the lead to the turning point and back again to the finish in Denver. He managed this despite that fact that when passing through Evans, in attempting to get by a wagon, he rode into a ditch, sustaining painful hurts about the legs. Wolter, on a Merkel, defeated W. B. Glasser, on an R.-S., by 22 seconds. The race was by far the most interesting ever held in Denver and produced a tremendous amount of enthusiasm among several thousand spectators. The summaries:



W. W. WHITING AND W. S. WUNDERLE.
Winners of 112 Mile Road Race in Denver.

Amateur Division.—First, Walter W. Whiting (Harley-Davidson single), time, 3 hours 22 minutes and 55½ seconds; second, S. W. Wunderle (R.-S. single), time, 3 hours 25 minutes and 23 seconds; third, Perry Mead (Excelsior single), time, 3 hours 27 minutes and 58 seconds; fourth, L. F. Bowen (Excelsior single), time, 3 hours 48 minutes and 58 seconds.

Professional Division.—First, Joseph Wolter (Merkel twin), time, 3 hours 32 minutes and 38 seconds; second, W. B. Glasser (R.-S. twin), time, 3 hours 33 minutes; third, Earle Armstrong (Indian twin), time, 4 hours 9 minutes and 28 seconds; fourth, John Albright (Merkel twin), time, 4 hours 10 minutes.

Referring to Whiting's victory, the Denver *Times*, in its elaborate report of the contest says: "Only the most reckless riding enabled Whiting to make his remarkable time and win first place. In the last thirty miles of the race a big Haines car followed within a few miles of the Harley-Davidson rider. At every smooth stretch of road he would disappear in a cloud of dust. At times it seemed to those who were following him that his intrepid driving must meet with fatal results. Nothing seemed to daunt him and before nothing would he slacken his speed, which was at times terrific. Three times in the last thirty miles his rear tire blow out. A quick stop, a hurried repair and Whiting was off again."

BANQUETTED INDIAN RACERS.

AS an aftermath to the Hawthorne track races, in which the Indian team did such wonderful work, Manager P. B. Whitney, of the Hendee Branch in Chicago, gave a banquet in honor of the Indian riders a week ago Thursday night at Remmler's, followed by a theater party. Among those who partook of Mr. Whitney's hospitality were Huyck, Hinckley, Jenkins, Galitzki, Davis and Harry Miller, who has charge of all the Indian racing machines. Of course, all spent a most enjoyable evening. Incidentally, the discussions had very much to do with future racing prospects in Chicago, particularly with the arrangements now being made to conduct a meet on July 4 on the Libertyville track. Interest in racing in the Middle West is greater than ever and there is no doubt that the Libertyville program, which will be managed by the Chicago Motorcycle Club, will be witnessed by thousands of enthusiastic spectators.

* *

W. G. BACHMAN is now president of the Wilkes-Barre Club. The other officers are W. White, vice-president; B. F. Conners, treasurer; C. E. Brown, secretary; R. Davis, captain; J. Helfrich, first lieutenant, and L. Heller, second lieutenant.

TWO DAYS' MEET AT SAN ANTONIO.

MAY 29.—Three miles, twins—Won by Otto Leoloff, Thor. Time, 3:56. Three miles, singles—Won by Rex Wickwire, Indian; second, Otto Leoloff, Thor; third, K. G. Wickwire, Indian. Time, 3:47. Six miles, twins—Won by Rex Wickwire, Indian; second, Carl Huser, Thor; third, Otto Leoloff, Thor. Time, 7:12⅖. Unlimited pursuit, singles—Won by K. G. Wickwire, Indian; second, Rex Wickwire, Indian. Distance, 9 miles. Time, 12:04. Three miles handicap, open—Won by Otto Leoloff, Thor (0:20); second, Rex Wickwire, Indian (0:50). Time, 4:11⅕. Unlimited pursuit, twins—Won by Rex Wickwire, Indian. Distance, 4½ miles. Time, 6:02. Six miles, club members—Won by Rex Wickwire, Indian; second, Carl Huser, Thor. Time, 7:03. Six miles match—Won by Carl Huser, Thor; second, Rex Wickwire, Indian. Time, 7:10.

May 30—Nine miles, twins—Won by Carl Huser, Thor; second, Rex Wickwire, Indian. Time, 10:09⅗. Nine miles, singles—Won by Otto Leoloff, Thor; second, Rex Wickwire, Indian; third, E. R. Norberry, Excelsior. Time, 10:51⅗. Six miles, singles—Won by Otto Leoloff, Thor; second, E. Dickerson, Thor. Time, 7:41⅘. Three miles, apple-eating novelty—Won by Otto Leoloff, Thor; second, O. B. Smith, Indian. Time, not announced.

LOGAN STARS IN SHINGLE HILL CLIMB.

NEW HAVEN, Conn.—At the Shingle Hill Climb of the Yale Automobile Club, phenomenal time was made in the three events for motorcycles. The climb was held under ideal weather conditions and witnessed by thousands of people, who thronged the steep banks of the course. Half way up the hill is a dangerous "S" turn, while the grade is all the way from zero to 20 per cent. The entire programme was run off without a single hitch or accident of any kind. F. J. Wagner acted as starter, with Charles H. Gillette, president of the Hartford Auto Club, as referee. The motorcycle events were held under the sanction of the F. A. M., J. M. Boyce, local commissioner, being present.

The climb started at 2 o'clock, with Class A for motorcycles under 30½ cubic inches, which was won by A. G. Chapple on a Merkel; time, 54⅖ seconds. Second, G. A. Wildman, on an Indian; time, 1:08⅗. Class B, the second event for motorcycles under 61 cubic inches, was won by H. H. Logan, a Yale senior, on a Merkel; time, 53⅕ seconds. Second, C. Gustafson, Indian; time, 54⅖ seconds. Class C, free-for-all for motorcycles, no restrictions, won by H. H. Logan, on a Merkel; time, 51⅕ seconds. Second place was tied by C. Gustafson, Indian, and A. G. Chapple, Merkel; time, 52⅗ seconds. H. H. Logan's time in Class C, 51⅕ seconds, is within one-fifth of a second of the record for the Shingle Hill course, made last year in the Yale Auto Club climb by David Bruce Brown, the noted amateur driver, in a 120 Benz racing car.

The best time made by any racing car in this year's climb, the largest and most important in the East, was made by George Robinson, of Vanderbilt Cup fame, in a 90 h. p. Simplex car. Robinson covered the course, which is exactly 5,320.50 feet in length, in 51⅘ seconds.

Cox, of New Haven, who claims the amateur motorcycle championship of New England, was barred from riding in the free-for-all event because of a protest by Chapple, on the score that he had ridden several days before in the Snake Hill climb at Bridgeport, unsanctioned by the F. A. M. Cox admitted riding in this race, but pleaded that he was ignorant of the fact that it was an unsanctioned event. Cox's place in the event was taken by his brother, James F. Cox, who, however, was unable to equal the past performances of his brother, his time over the course being 55⅘ seconds.

To further complicate matters, protests have been filed with the chairman of the competition committee, charging Chapple and Logan with riding machines fitted with open ports. All prize awards have been held up pending a decision.

Logan Winning in New Haven Hill-Climb.

HONORS FOR INDIAN AND YALE.

SINCE the date of issue of our June 1 Number, announcement has been made of the winners of several special prizes in connection with the New Jersey Club's third annual endurance run. As we stated, ten of the fifty starters were awarded gold medals. Seven, having scored between 980 and 999 points, qualified for silver medals, while nine, scoring from 950 to 980, received bronze evidences of their endurance and the satisfactory running of their machines. The bronze plaque offered for the manufacturer's team making the best score was earned by the Indian team, consisting of Ray Pascall, W. H. Spear and Harvey Snyder. The competition was exceedingly close, the Indian representatives having scored 2,983 points out of a possible 3,000, giving them a percentage of 99.43. The Yale boys—George Reichey, Harold Nichols and George Frost—were defeated for the team honors by less than 1 per cent., as they had a total score of 2,968 points, or a percentage of 98.93. Third place was taken by the Merkel quartette, and fourth by the Excelsior team. To a Yale rider, Harold Nichols, of West New Brighton, N. Y., went the cup awarded for the most consistent performance among all competitors. Nichols had some real hard luck. He lost 22 points for early arrival at the first secret control, enough to allow the Indian trio to beat the Yale riders for the team trophy.

The penalties inflicted at the secret controls did not operate against the medal awards, which had to do only with the arrivals at the regular controls and the work on Cushmall Hill. In competition for the consistency prize, George Fawcett was second, and E. W. Stevens, third. The latter two, together with H. A. Hill and L. H. Guterman, were awarded special prizes in the shape of Diamond tires. Andrew Boschen, who had the lowest score of the 33 survivors, carried away the consolation prize.

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GOOD SPORT IN PORTLAND, ORE.

THE newly organized Portland Club, of Portland, Ore., held a fine series of track races on the Country Club mile track on May 29. The track has no banking whatever, and rain the night before had made it somewhat slippery. However, the times made compare very favorably with those in dirt track events in other parts of the country. The summary follows:

Three miles for 3 h. machines.—E. L. Pary, Indian, first; W. P. Brush, Thor-Curtiss, second. Time, 4:48. Three miles, 4 h. machines—Gus. Peppel, Royal Pioneer, first; Otto Muessig, Thor-Curtiss, second. Time, 3:53. Five miles, 5 h. machines—Charles Dyde, Indian, first; M. J. Reisner, Indian, second; H. Kildow, Harley-Davidson, third. Time, 6:31⅗. Ten miles, 7 h. machines—Fred Nowotny, Indian, first; Ed. Greeshamer, Indian, second; Verne Maskell, Indian, third. Time, 10:57. One mile, 5 h. machines—Charles Dydem, Indian, first; Otto Muessig, Thor-Curtiss, second; J. F. Cable, Indian, third. Time, 1:20. Five miles, 3 h. machines—W. P. Brush, Thor-Curtiss, first; E. L. Pary, Indian, second; J. F. Cable, Indian, third. Time, 7:47. Fifteen miles—7 h. machines—Verne Maskell, Indian, first; Fred Nowotny, Indian, second; E. H. Stone, Indian, third. Time, 15:27. Five miles, 4 h. machines—A. Gruman, Indian, first; Gus Peppel, Royal Pioneer, second; L. T. Dean, Indian, third. Time, 6:10½. Ten miles, 5 h. machines—Charles Dyde, Indian, first, R. E. Guerin, Royal Pioneer, second; Otto Muessig, Thor-Curtiss, third. Time, 12:03. Pursuit race, 15 minutes, free-for-all. Verne Maskell, Indian, first. Time, 6:40.

⁂

C. C. MILLIMAN, on an Indian, was the winner in the twin cylinder event on Snake Hill, near Bridgeport, Conn., Decoration Day. P. H. Cox, also on an Indian, won in the single cylinder class. Milliman's time was one minute and 26⅕ seconds, while Cox made the ascent in one minute and 35⅕ seconds.

GOOD ROADS FOR F. A. M. MEET RUNS

Philadelphia the Center of a Motoring Paradise—The Hartford Summer Session.

ALTHOUGH there have been no important new developments in connection with the preparations being made in Philadelphia for the F. A. M. Meet, the various committees in charge of the work have made goodly progress during the past fortnight. Incidentally, contributions have been received from all the dealers in Philadelphia, as well as from a number of manufacturers of machines and accessories. As soon as the committees are in position to get a line upon the amount which they will be permitted to expend, they will be able to go ahead with their final arrangements. Of course, it is evident that the more liberal the contributions the more extensive, elaborate and interesting the week's programme can be made.

We publish herewith several photographs showing stretches of road along the proposed Willow Grove run. These are simply samples of the kind of thoroughfare with which that part of Pennsylvania is gridironed. One of the photos shows a drive in Fairmount Park, through which the participants in the Riverside Run will ride. Fairmount, the largest natural park in the world, is so well supplied with magnificent roads that a motorcycle rider could easily spend several days there without covering any of the ground more than once.

Stanley T. Kellogg, Joseph Merkel and Frank Shaw have been appointed a committee to go over the route of the endurance run to determine the exact mileage, place sign posts, make hotel arrangements and prepare an itinerary for the use of competitors.

In connection with license requirements, we are advised that Pennsylvania will recognize the license of any State except New Jersey. Therefore, New Jersey riders will have to obtain a Pennsylvania license, at the cost of $2.50. On the other hand, those who expect to ride in New Jersey, to take part in the run to Atlantic City and also the endurance contest, will have to obtain a Jersey license, at the cost of $2.

Arrangements have been made to decorate with electric signs and also with a "Welcome F. A. M." the large archways in the City Hall tower. Further details, in the way of arrangements for the smoker, have been announced. This will be an open air entertainment at Riverside, on the banks of the Schuylkill river, after a run through Fairmount Park. Riverside Park will be engaged for the occasion, and the boys will have it all to themselves. There will be food and refreshments aplenty and a first-class vaudeville.

Out-of-town riders may send their machines to the Peerless Garage, at 1406 Oxford street, prepaid, of course. This place is just around the corner from the club house and the machines will be uncrated, stored and recrated at comparatively small cost. In addition, the following dealers will take care of machines at a slight expense to the owners: Charles Krauss, 2123 N. Broad street, Indian and Excelsior agent, who has room for 75 machines; Geo. W. Rhodes, 2210 N. Broad street, R.-S. agent, room for about 25 machines; C. D. Fieler, 2121 N. Broad street, agent for the Merkel-Light and Greyhound, who has room for 15 machines, and George Rheinbold, 2437 N. Broad street, Yale representative, who has room for 25 machines.

* *

ONE of the features of the annual summer session of the Eastern District of the F. A. M., held at Hartford on the 4th inst., was the appointment of a committee to draw up resolutions in connection with the delays which have been experienced in the way of obtaining membership cards, pins, etc., by new members of the Federation. Vice-President C. C. Wilber, who was in charge of the meeting, after explaining the conditions which he considered responsible for what is generally believed to be only a temporary tangle, appointed Messrs. Goerz and Horenberger, of New York, and Mr. Baker, of Hartford. Such criticisms as were indulged in were not made with a view to finding fault, but simply to point to a condition of affairs which has more or less seriously handicapped the State commissioners in their work.

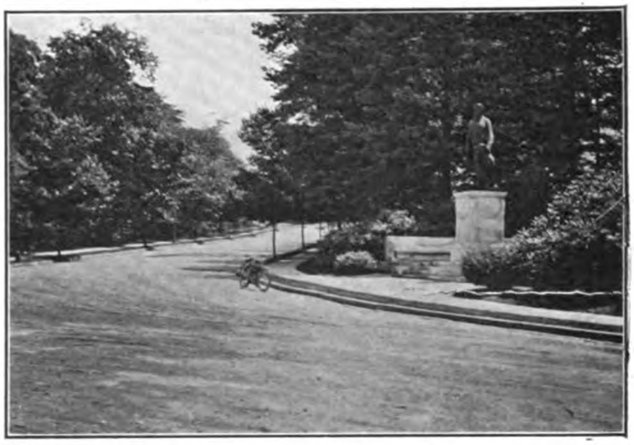
Practically all of the commissioners in the district submitted business-like and comprehensive reports, indicating that Vice-President Wilber has suceeded in accomplishing something which his predecessors had failed to do, that is, to get the commissioners sufficiently interested in their work to advise the Federation as to what progress they were really making. Two hundred local commissioners have been appointed and it can be truthfully said that the majority of them are taking their work seriously and actually trying to accomplish something. Treasurer Horenberger reported a balance of $632.83 in the district treasury.

Many of those present took the opportunity to congratulate Mr. Wilber on the success of his administration and to express the wish that he become the next president of the F. A. M. While Mr. Wilber was temporarily absent from

Roads On the Way From Philadelphia to Willow Grove.

Along One of the Runs Planned by the F. A. M. Meet Club.

Back Road to Willow Grove.



One of the Fairmount Park Drives.

the room, a motion was adopted to the effect that he be endorsed for the leadership of the Federation and that in the event of his not being elected to the presidency he be again regarded as the district's nominee for vice-president. Should Mr. Wilber succeed Mr. Willis, the district's condidate for vice-president will be E. M. Estabrook, who has accomplished so much as chairman of the membership committee. Those present at the meeting were:

Henry C. Lake, C. C. Wilber, E. T. Morse, Fred S. Morse, E. Willard, all of Keene, New Hampshire; Geo. Maslen, M. Stephan, C. D. Crane, R. J. Hart, L. A. Bacon, B. Biederman, C. M. Carlson, J. Hansen, M. R. Griswold, L. F. Sherman, M. Bravil, Geo. W. Baker, H. B. Saunders, A. P. Brudeur, H. F. Lobmeyer, C. W. Smith, E. Finch, G. A. Finch, H. W. Byington, all of Hartford; B. A. Swenson, C. H. Westcott, F. E. Williamson, C. Larsen, all of Providence; J. Leo Sauer, R. G. Betts, Albert Goertz and F. W. Horenburger, of New York.

LOS ANGELES CLUB'S ENDURANCE RUN HAS FOURTEEN PERFECT SCORERS.

(*Continued from page* 1.)

hit when he agreed to act as toastmaster and chairman. When the boys are grandfathers they will tell of their reception at dear old Santa Barbara. To top it all, the motorcycle dealers who gave up their store for a control, went around in the night and filled all the machines with oil and gasoline and then refused to receive any pay.

G. A. Hayes, a Los Angeles newspaper worker, who recently bought a second-hand Indian 5 h. from a young fellow who hadn't the strength to handle so powerful a machine, went through the mountains and both passes in the remarkable time of 55 minutes, duplicating the time of E. L. Parmelee, the Iowa consumptive, who came out here to die just a few winters ago and has changed his mind. Parmelee made this fast time on a Harley-Davidson 4 h. on the up trip and not being satisfied with the day's work after reaching the night control at Santa Barbara, nagged Griffith into a half-mile race and went out and beat him. But on the second day, when he tried to get away from the Ventura marshal, after being arrested for coming down the long avenue at seventy-five miles an hour, he lost, for the marshal got a good hold on Parmelee's coat-tails and said: "No, you don't." This last race cost Parmelee his gold metal, while the court soaked him $10 extra for "interfering with an officer." The judge held the Iowan just long enough to make him eighteen minutes shy when he reached the last control at Los Angeles.

Jack Ott not only won a perfect score, but he was the only man on the run to ride every mountain grade, hill and wash without a dismount. J. Howard Shafer was another intrepid rider. He rode a Thor and also made good.

Tuesday night there was sort of love feast at the club, while all present who were in the endurance run or along the route told of strange sights and things. "Fat" Johnson acted as sort of prosecuting attorney to pump the facts out of the bashful ones and a shorthand report would have shown the word "applause" pretty often.

A classification of the machines shows the following entries: Indians, 11; Excelsiors, 7; M-M, 5; Harley-Davidson, 4; Reading Standards, 3; Wagner, 3; Thor, 3; Merkel, 2; Yale, 1; Armac, 1; Peugeot, 1.

Perfect Scores.—Indian, four, A. J. Menegay, G. A. Hayes and Irwin Knappe, on 5 h. twin-cylinders; George Priddy, on 7 h. twin-cylinder. Excelsior, three; L. A. Boland, R. D. Bissett and Clarence Briggs, all on 4 h. singles. Thor, 2; J. Howard Shafer and Jack Ott, on 6 h. twin-cylinders. Merkel, two; M. J. Graves, 6 h. double; Harry Lightcap, on 7 h. double. Harley-Davidson, two; Glenn Hafer and A. J. Griffith, on 4 h. singles. Wagner, one; C. M. Frink, 3½ h. single. (Frink has won perfect scores five times.)

Highly Commended.—Harley-Davidson, ridden by E. L. Parmelee, lost 18 minutes on account of arrest at Ventura for exceeding the speed limit. Lincoln Holland, on an M-M, lost time at Santa Barbara, held down to speed limit, after it had been removed for earlier riders. A. Verill, on an Armac, forgot to register at San Fernando on return trip.

Bad Luck Stories.—Edwards, on an M-M, had a perfect score to within 18 miles of home, when a fall in Tujunga, Wash., put his machine out of commission. Raymond Seymour broke a rear rim in Tujunga, Wash., and rebuilt rear wheel of his big Reading at San Fernando, but lost too much time to win. Montgomery, on an Excelsior, ran into the ford near Naples and had to stop and dry his magneto, losing too much time to make a perfect score thereafter. Finley Johnson had 87 minutes to do 34 miles, when a tire blew up. J. W. Berryman broke his rear rim near Chatsworth and had to drop out.

Accidents.—F. W. Emerson, a linotype operator in Los Angeles, who was following the run on an Excelsior, tried to ride into Los Angeles from near San Fernando after dark without a lamp and collided with the wagon tongue of a farm wagon. He was taken to Burbank Hospital by the farmer. He died the next day. T. A. Culver who, with his wife, was also following the run, went off the grade at Chatsworth and broke a knee cap. His wife was not injured. C. W. Risden, Indian agent, who was following in an automobile, carried the Culvers to the railroad, while his companion, Gal Blaylock, rode the motorcycle to the Chatsworth station. Glenn Hafer rode off a bridge while going about 35 miles an hour in Casitas Pass, and rolled about 60 feet down the canyon. After coming to his senses he got on his Harley-Davidson and rode on to Ventura, where he was arrested for exceeding the speed limit. Still he made a perfect score.

WITH THE CLUBS

SAVIN ROCK RUN A BIG SUCCESS——HARLEM CLUB'S THREE-DAY RUN OVER JULY 4th.

NEW HAVEN was, on Sunday, June 6, the focal point of two runs from New York and Springfield, respectively. The cyclists were the guests, while in town, of James F. Cox & Sons, Indian agents, and were entertained by a smoker and a shore dinner at Savin Rock, a nearby resort.

At Cox & Sons the motorcyclists were supplied with gasoline and all necessary repairs gratis. After a short rest the Springfield club, accompanied by James and Peter Cox, ran down to Savin Rock, where the New York delegation was met. The New York cyclists made the run to Savin Rock in four hours and a half, reaching there about one o'clock.

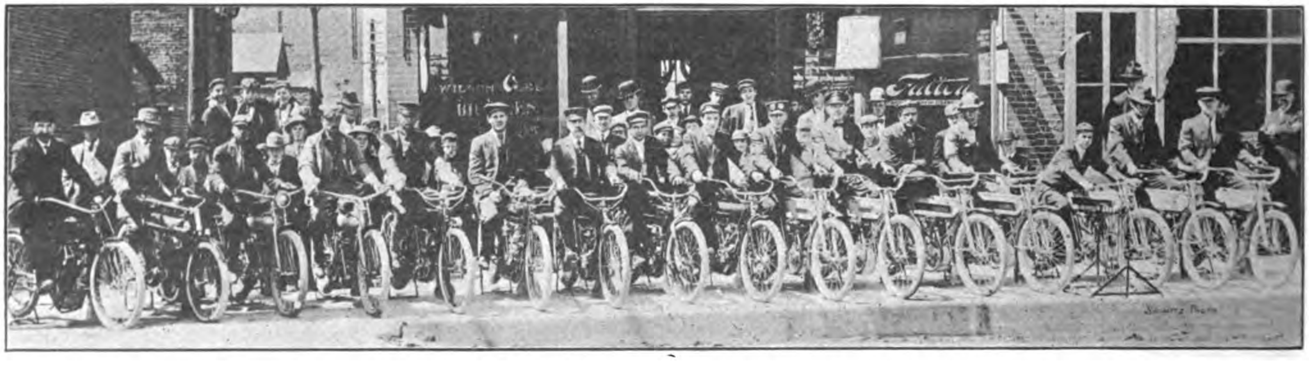
The Hendee factory was particularly well represented. One table at the dinner was made up of R. W. Ellingham, superintendent of the factory; F. J. Weschler, sales manager; Roy Cross, assistant sales manager; J. H. O'Brien, of the sales department; W. H. Ensminger, of the cost department; E. H. Madden, chief draftsman; R. H. Paterson, foreman of the enameling room; C. F. Spencer, foreman of testing room; and M. Kibbe, repair department tester. The winners of the Springfield Club reliability run were: Fred Chapin, Jones speedometer; Roy Cross, lamp; F. J. Weschler, horn; and John Hoffman, leggins.

The New Yorkers who started, the clubs to which they belong, and the machines they rode were as follows: John B. Hawkins, Concourse, Indian, 5 h.; B. C. Lesser, Concourse, Indian, 5 h.; E. C. Lesser, Concourse, Indian, 7 h.; V. H. Downes, Concourse, Indian, 5 h.; H. T. Havell, Concourse, Indian, 5 h.; J. J. McNally, Concourse, Indian, 3½ h.; M. L. Restrepo, Concourse, Indian, 7 h.; E. Rosien, Concourse, Thor, 6 h.; M. C. Rose, Concourse, Indian, 3½ h.; W. A. McClelland, Concourse, Indian, 7 h.; M. E. Toepel, New York, Indian, 5 h.; B. D. Lott, Concourse, Thor, 6 h.; C. W. Bush, Concourse, Thor, 6 h.; J. C. Foley, Concourse, Indian, 4 h.; D. A. Nielson, unattached, Thor, 6 h.; F. C. Denton, unattached, Thor, 6 h.; B. C. Blanco, unattached, Indian, 5 h.; L. Herberger, Concourse, Indian, 3½ h.; Fred Kick, unattached, Indian, 5 h.; W. Wood, New York, N. S. U. 4 h.; F. Thompson, unattached, Indian, 5 h.; Albert Kreuder, New York, M-M, 4 h.; F. T. Neuenfeld, Stamford, Indian, 5 h.; G. Kirschoff, Harlem, N. S. U., 3½ h.; M. Conant, Harlem, Indian, 4 h.; S. Levin, New York, Indian, 5 h.; W. W. Adams, unattached, Indian, 5 h.; R. T. Wenn-Stroem, Harlem, Indian, 5 h.; A. Smith, Concourse, Indian, 5 h.; C. Frobisher, Concourse, Indian, 5 h.; M. Sullivan, Concourse, Excelsior, 3½ h.

Mr. Toepel was adjudged the winner of the special prize for maintaining an average speed of 18 miles per hour, with Wm. Woods second.

ONE of the season's real big events in metropolitan circles will be the sixth semi-annual run to Atlantic City and return July 2, 3 and 4, under the auspices of the Harlem Club. The run will be supported not only by the Harlem Club, but by the New Jersey, New York, Concourse and Long Island organizations as well. Efforts are being made to bring the entry list up to one hundred and from present indications it is safe to say that these endeavors will prove successful. The first day's schedule calls for a start from the club's headquarters at 61 West 124th street at 2 o'clock Saturday afternoon, July 2. The route will be to South Ferry, to St. George and thence through Staten Island to Perth Amboy, South Amboy, Matawan, Freehold and Farmingdale, where the night stop will be made at the Brower House. Sunday the riders will travel to Atlantic City by way of Lakewood, Tom's River, Waretown, Tuckertown and Pleasantville. The homeward trip will be over the same course, the distance each way being 133 miles. Entrants living in New Jersey will be credited with perfect scores to Perth Amboy, provided they check there at 5:15 p. m. July 2 and at the same place on the return trip at 5:30 p. m. July 4. The schedule and controls have been so arranged as to call for an average speed of only fourteen to eighteen miles an hour, which will permit novices on low-powered machines to make the run without penalty quite as easily as the more experienced riders. Moreover, the rules provide for deductions for excessive speed. Entry blanks may be had from L. H. Guterman, at 103 East 125th street, New York.

THIS photograph of part of the members of the Wyoming Club of Cheyenne, Wyo., was taken just before a race meet conducted under the auspices of that organization. The riders, from left to right, are A. P. Wilson, E. Garfield, F. Hanson, F. Draubbaugh, F. Brown, J. N. Jenkins, W. W. Miller, F. Kingham, Secretary F. Boyer, J. Kingham, Vice-president W. A. Wilson, Sergeant Chevier, President C. E. Williams, I. Fukishima, A. Des Jardines and O. E. Fisher.



THIS is a flashlight photograph of thirty members of the Detroit Club, a thoroughly live organization whose members have the reputation of making persistent and steady progress. The above picture was taken in the club rooms recently on the occasion of a lunch, smoker and entertainment.

INDIANA CLUB'S ROAD RACE.

HODGIN, captain of the club, broke all State records in the Indiana Club's road contest Decoration Day. His time for sixty-five miles was 82 minutes. This was seventeen minutes better than that made last year. Hodgin rode a 7 Indian. Lapham, who finished three minutes later than Hodgin, rode a 5 Indian. The following received medals: N. Hodgin, two gold medals, first time and place; F. Lapham, two silver medals, second time and place; F. Stewart, one silver medal, third place; W. McCoy, one silver medal, fourth place; J. Ellis, one bronze medal, fifth place; C. Hendrickson, one bronze medal, sixth place.

⁂

JULY 4TH MEET IN BEAUMONT.

ARRANGEMENTS are being made by the Jefferson County Club to hold a race meet at the park in Beaumont, Tex., the 4th of July. The track is being put into shape for motor racing. The club's total membership is now forty-two and both Beaumont and Port Arthur riders are eligible. A committee, of which J. Daniels is chairman, has been appointed to purchase suitable uniforms.

⁂

HILL CLIMB IN KENTUCKY.

A HILL climbing contest on Bald Knob, five miles back of New Albany, was conducted by the members of the Louisville Club Decoration Day. First place was won by Peter J. Kuhn, on an R.-S., who made the hill in 17⅘ seconds. Clarence Rodgers, also on an R.-S., was second, and Chas. Baumeister, on a Yale, third.

⁂

J. HOGG, of Urbana, Ill., and Floyd Baum, of Champaign, Ill., members of the Twin City Motorcycle Club, have just started out for a tour of the world on their motorcycles.

⁂

JULY 2 is the date and Crittenden Park the place of a race meet to be conducted by the Rochester Club.

ANOTHER IN THE KEYSTONE STATE.

A FEW nights ago, at 222 Penn street, the Reading Club was organized with twenty-eight charter members. It is planned, during the current season, to hold in and around Reading, club runs, endurance contests, hill climbs and race meets. The meeting was a very enthusiastic one. A constitution and by-laws were adopted. Temporary officers for the evening were: Temporary chairman, J. S. Deysher; temporary secretary, C. A. Mariani; temporary treasurer, James Mayo. The following officers were elected: President, J. S. Deysher; vice-president, Howard L. Dietrich; secretary, Howard Sitler; and treasurer, James Mayo. Captain of the club, W. P. White; first lieutenant, Harry Becker; second lieutenant, Bert Francis; trustees, Wm. Schaeffer, A. E. Droderick, and Jas. Dunkle.

⁂

SYRACUSE CLUB GROWING.

AN invitation by George L. Potter for a run to his cottage at Oneida Lake for dinner on Sunday, June 12, was accepted by the members of the Syracuse Club at a recent meeting. Incidentally, as indicating the growth of the club's membership, note may be made of the fact that the organization has just ordered one hundred new pennants.

⁂

THE club run and hill climb conducted by the Columbus, (O.) Club on Decoration Day was started with seventeen riders, five finishing with one thousand points, as follows: Fred Hare, Indian; E. Livingston, Yale; Alfred Cassle, N. S. U.; E. Brown, Indian; and W. Montz, Indian.

⁂

C. F. S. FELTON has been instrumental in organizing a club in Schenectady, N. Y. Arrangements are being made by a special committee appointed by the club to obtain suitable headquarters.

⁂

FROM June to October the New York Club will hold its meetings every Wednesday night. During the winter months meetings will be held the second Wednesday and fourth Thursday of every month.

CONDUCTING A RACE MEET

BY THE NOMAD.

THE above-mentioned form of amusement is one of the hardest jobs imaginable for a club executive. Of course the reader must concede that a race meet is not worthy of its name unless it is both a sporting and a financial success. Failure from a sporting point of view where, for example, some rider can stop to light a cigarette and then easily come in a winner, will spoil any chance of a future meet being a success from any point of view, and, what is far worse, has a tendency to stir up ill feeling and jealousy among the club members. The very *raison d'etre* of club life is thus impaired, for does not club life mean, in so many words, good fellowship and brotherhood? Then, financial failure will surely be the result of mismanagement, and as no committeeman loves digging down in his jeans to make up a deficit, this also will lead to much dissention in the ranks. Now, first of all we must study how to avoid these difficulties, as they are pitfalls into which many a club has fallen. However, I intend to reverse the order of the going, that is, I mean to take up the business and organization side of the question before dealing with the sporting phase. I do this because it is the business organization which is always studied before making final arrangements for the meet. Thus it is always policy to appoint a business committee as well as a sporting committee.

No club should entertain the idea of a race meet unless sufficient funds are in the hands of the treasurer of the club to pay for advertising, posters, track deposit and so forth, as one cannot bank on success otherwise. In the business organization there should be a secretary, a treasurer, a publicity man and, say, two other level-headed members. A small, level-headed organization can arrive at decisions far more quickly than many "butters-in," who continually launch absurd ideas on how things should be run. The publicity man will need the assistance of others, and here you must be very careful to choose the right man for the place. The duties of the press agent are varied, for he must see to the "boosting" all along the line and never slack up. He must prepare newspaper "write-ups," advertising, posters and all attendant matters connected with that end of the business. Every man in the business organization should have his appointed task, and this leaving of a member to his own resources to forward the interests of the meet generally results in each man proving his merit.

Every member of the club must, of course, participate in the sale of tickets. This is essential, as a personal canvass reaches far. Many a member will also know of stores and other places where small announcement cards can be displayed for nothing. I have seen some fine amateur posterwork advertising a meet done by members themselves, in fact, I have come across numerous novel advertising dodges for attracting the public, which were the result of club cooperation. To sum up this part of the business, I may say that enthusiasm is the keynote to sure success. I once heard it said of a certain club that it could run a race meeting on an oasis in the Sahara Desert and make money on the proposition. The real reason of the success of this club was that every member was filled up to the eyes with enthusiasm and every man did his share and more to make each meeting both a financial and a sporting success. If it is *possible*, none of the business or sporting committees should be competitors. I say this because from experience I have learned that one cannot devote one's *whole*, undivided attention to the running of a race meet when one is a competitor. I was once secretary of a large club and competed in the leading race meet of the year, which I myself had organized. That was the busiest day of my life, and I would not repeat the experience for anything. Again, if the members of the sporting committee are technical men and, better still, old racing men, they can be safely trusted with the handicapping; whereas, if one or two competitors are in the ranks, these men have either to take absurd "back marks" or to run the risk of some sorehead calling them grafters, etc.!

The sporting committee, as I say, *must* be composed of men with technical knowledge, race meet and perhaps actual racing experience. Keep out the "office seekers"; by these I mean men who want to strut about the track enclosure with a bright-colored badge and an interfering nature. Races have to be run off promptly without any long waits, and such men are in the way and cause confusion. I never can understand why a man seeks such "bubble reputation." Personally, I would far rather watch a race from a comfortable seat than from the enclosure of the track. Each competitor may or may not be allowed a pusher-off; this is at the discretion of the sporting organization, but care should be taken from the very outset to have only a chosen few experts in the track enclosure.

The program should be made as varied as possible. Many sound variations are open to the committee, such as scratch races *within* certain engine limits, handicaps, trials against time, unlimited engine capacity contests, a *slow* race, a race open to a certain make and power of motorcycle and a race for touring machines with full outfits. A pursuit race is also a good item in a program, one which never fails to attract the public. In the scratch race for engines, single or multi-cylinder, up to a certain power, it is well to clearly specify the cubical capacity limit. In handicapping, consider this capacity, of course, but also remember that past performances count. There have been many discussions at home and abroad on the handicapping question. Some riders claim that the competitor's weight affects the question. So it does, but this would probably add to much complication, although it has been successfully tried out in hill-climbing competitions. Anyhow the limit man is the man with the one-lunger of smallest cubic capacity, and so on backwards until we come to the scratch rider. But do not ignore past performances. For instance, A and B ride machines of exactly the same cylinder dimensions, or rather cubical capacity. A has won a number of races, whilst B has captured only one or two and has been second in several events won by A. Obviously it would not be fair to start these men simultaneously, but B should get a few seconds start. It is best to handicap by time, that is, let the limit man start first, the man who receives ten seconds *less* than limit starting at the count of ten, and so on. A sporting committee knows the competitors and often can allow a man with a touring machine a start over a competitor with a racing mount of less power; discretion should be exercised here as well as in the matter of racing experience. In open events one cannot be quite so lenient, as a man must be prepared to take everything as it comes and can expect no advantage from inside knowledge, for in entering an open event he blatantly shows his confidence in himself or is evidently prepared to take a sporting chance in company with experienced riders.

In running off time trials care must be taken to have no long "waits," in fact, this point is applicable right through the program. The timers should also have thoroughly reliable split-second stop watches. In time trials it often happens that only a fraction of a second divides the first, second and third men, so the value of experienced timekeepers with first-class watches can readily be appreciated.

There need not be much said on the subject of a scratch race for engines of unlimited capacity, single or multi-cylinder. I have found it to be the best plan to make this an open race of not under ten miles. If this race is open, well-known riders will usually enter, and the club publicity man naturally makes full use of this. The question of having a race open to a certain make and power of machine can be safely left to the club itself. One will often find some ten or twelve members who own similar machines and who are anxious to try them out against one another. This type of race is very good sport, for it taxes the "tuning up" skill and ingenuity of the competitors.

A race for pure touring mounts with full kit is also productive of excellent sport. The only point to be observed in such an event is that it should be framed up as a handicap *unless* limited, for instance, to single-cylinder motorcycles, when one can reasonably expect that even machines of different make, provided the horse-power is about equal, *should* show about the same speed under average touring conditions. However, I am of the opinion that a handicap is safer even then. A "slow" race never fails to relieve the monotony of continual speed turns. Competitors *must* stick to the track, must not touch the ground with their feet, must not block any other competitor even by accident, or suffer disqualification. Some sporting committees allow the exhaust valve lift to be used in this race, while others insist on the engine firing regularly, but in my opinion the whole thing should be left to the rider, as if the exhaust valve is raised the competitor stands a good chance of stalling his engine, and, as pedalling is strictly barred in this form of competition, this predicament will put a rider out of the race.

A pursuit race is started with the riders at opposite sides of the track, the one who passes the other first being the winner. This type of race is most exciting for competitors and spectators alike and should be included in a program because of its never failing popularity. Then inter-club team contests can be run as pursuit races, in fact, I am of the opinion that this is by far the best way of running any form of inter-club race, as it does away with any chances of "kicking" after the event, as may be the case in a straight speed event, where a competitor may be shut in by the opposing team. Just as I am in favor of inter-club "fraternity" runs so do I stand for the inclusion of inter-club team races in a race meet. This produces a feeling of friendly rivalry and good fellowship between the competing clubs—a good feature financially and in a sporting way. Such a contest invariably takes well with the spectators.

In the foregoing I have been only able to touch lightly on each point, but I have endeavored to boil the information down to the essentials. For instance, a whole chapter might be devoted to the judicious selection of a track. Lucky the club which has a good track right at hand. I have known ancient trotting tracks, running four laps to the mile, to be used for this purpose. I once rode a ten-mile race on a track eight laps to the mile and I feel dizzy now to think of it! The track is a matter of locality and convenience to the club; as long as the competitors do not take unreasonable risks, even a poor track does not necessarily mean any serious accidents to mar a successful meeting. If a track is known to be dangerous in places it is well to warn the competitors beforehand, as this sometimes has a salutary effect, although the old hand at the game rarely hurts himself badly.

As I have said, the keynote to success is enthusiasm and co-operation on the part of the club members. With this, and a strong organization, success from both a sporting and financial point of view is bound to follow. So all there is to do now is to call a general meeting on the subject and go ahead with the right spirit. Many a simoleon may be turned into the club coffers as the outcome of a series of well-managed race meets.

GLOBE TROTTER OFF TO COAST.

GUSTAVE KOEGEL, who has a record of having traveled some 60,000 miles afoot and on bicycles and motorcycles through nearly every country on the globe, has left Chicago for Kansas City, where he will join Gottfried Rodriguez, a Hollander, who is traveling around the world on an M. M. machine.

Koegel says he has been engaged in walking and bicycle matches since 1893, when he made his first trip from New York to San Francisco in 107 days. In 1896 he started from the coast for a trip around the world, which he finished in twenty-two months. He walked from San Francisco to New York in the latter part of 1897 in ninety days. In 1898 he rode by bicycle from Leipsic, Germany, to Palestine and return in five months and later—1899-1900—went around the world from West to East, starting at Leipsic.

He started a third world trip from Dresden in 1901, representing a motorcycle firm there, but a disagreement with his employers when he reached New York caused him to abandon the tour. He will accompany Rodriguez to Los Angeles, and while there will plan a coast-to-coast trip East with the idea of breaking Weston's record of seventy-seven days.

* *

WANTS TOURING COMPANION.

DONALD W. BANFORD, 10 Brighton street, Rochester, N. Y., writes us of his intention to make a trip from Rochester to Boston and return by way of New York City. He is anxious to correspond with any other rider who would like to accompany him on his journey. He rides a 4 R.-S., and would be willing to go West instead of in the direction of the Hub, if that would be more convenient for the other fellow.

* *

A RACE meet will be held on the Libertyville track near Chicago Independence Day.

HER HEALTH IMPROVED BY TANDEM RIDING.

NEAL COCHRAN, of Los Angeles, sent us the postal printed below while taking a moonlight ride to Venice, his wife accompanying him. If anything, she is even a more enthusiastic devotee of the sport than is her husband. Previous to her taking up motoring a la tandem attachment, she was practically an invalid. During the past six months she has acquired perfect health.

* *

AT GRAND RAPIDS, MICH.

FIVE mile handicap—Won by J. Poisson; second, H. Brown; third, J. Arkeman; fourth, A. Austin; fifth, R. Rosenzwig; sixth, A. Stein. Time, 5:16⅖.

Neal Cochran, of Los Angeles.

REOPENING OF GUTTENBURG TRACK.

NOTWITHSTANDING the fact that rain prevented the completion of the program, the opening meet of the Manhattan Racing Association on the Guttenburg Motordrome, attended by nearly 3,000 people, proved a most auspicious inaugural. The weather was threatening from the start, in view of which adverse conditions the attendance was excellent. The track had been put in good condition and the entry lists were well filled up, with from six to fourteen entries in each.

The first race, a three mile novice, 30:50 class, was won by J. J. Rodgers, Jr., with Charles Ruck a close second. The next event, five miles for private owners, 61 class, brought out six starters. Charles Anderson, mounted on a 6 h. Peerless, was doing some great work when he fell at the lower turn. Although he was not injured, the accident put him out of the running. Frank Seery on a 4 h. Indian, was the victim of tinkeritis caused by some busybody shutting off his gasoline and opening his air shutter so that he was delayed in starting, despite which, although he could make a place, he finished the race, which was won by Albert Engle, Jr., on a 5 h. Indian. Thomas Rice, on a similar machine, was second, and Rodgers, on a 4 h. R-S, was third. The fast bunch came to the tape for the ten-mile trade rider open, 61 cubic class. A. G. Chapple, on a 7 h. Merkel, had trouble at the start, and was left at the tape. The lead was taken by Frank Hart, on a 7 h. R-S, and although he was doggedly chased by Charles Gustafson, on a 7 h. Indian, the latter never outdistanced the R-S rider, who won without any trouble. Gustafson was second and J. Buckingham, on a 5 h. Indian, third. In this event the crowd was treated to some spectacular riding by W. Tuebner (7 h. Merkel), who in rounding the upper turn, skidded. A pedal was broken and rider and machine were thrown out upon the bank. It was a perilous moment for Tuebner who managed, however, to stick to his machine and bring it back to the center of the track. He continued the race with one of his feet back on the rear hub. A second skidding, this time on the lower turn in the eighth lap, caused a fall, but the rider escaped injury.

Next in order was a three-cornered match race, 61 class, between A. G. Chapple (7 h. Merkel), Frank Hart (7 h. R-S), and Charles Gustafson (7 h. Indian). Chapple rode a very consistent race and had no serious difficulty in capturing first prize. Gustafson was second. Hart did not finish. Summaries:

Three miles, novice—30.50 cubic inch class—Won by J. J. Rodgers, Jr., 4 Reading-Standard; Charles Ruck, 4 Indian, second; time, 4:20.

Five miles, private owners—61.00 cubic inch class—Won by Charles Eagle, Jr., 5 Indian; Thomas Rice, 5 Indian, second; J. J. Rodgers, Jr., 4 Reading-Standard, third; time, 5:50⅗.

Ten miles, trade riders, open—61.00 cubic inch class—Won by Frank Hart, 7 Reading-Standard; Charles Gustafson, 7 Indian, second; J. Buckingham, 5 Indian, third; time, 10:12⅖.

Five miles, match race, 61.00 cubic inch class—Won by A. G. Chapple, 7 Merkel; Charles Gustafson, 7 Indian, second; time, 5:01⅖.

⁂

CENTURY RUN MEDALS READY.

F. B. WIDMAYER, chairman of the New York Club's Contest Committee, announces that the silver and bronze medals won by the survivors in the Spring century run are now ready for distribution to those who are entitled to them. Winners are requested to call or write to Mr. Widmayer, at 2312 Broadway, this city.

⁂

AN all-night and all-day fishing and picnic trip was recently enjoyed by the members of the Panther City Club of Fort Worth, Tex. These week-end trips are a feature of club activity in the Lone Star State. Not only are they popular among the members, but they are serving as well to make many converts to the sport.

GOOD TIME OVER TEXAS ROADS.

U. H. SCHMIDT, of Brenham, Tex., recently made a run to Houston. The distance is seventy-two miles, and although it required four hours and thirty minutes to make the entire trip, the thirty-six miles between Hockley and his destination were covered in forty minutes. The road from Brenham to Hockley is heavy and sandy, while from the middle point to Houston the route is over one of the fine shell boulevards for which that part of the Lone Star State is famous.

⁂

TWO EVENTS AT BINGHAMTON.

TWO motorcycle races were held in connection with a recent athletic meet in Binghamton, N. Y. In the twin-cylinder class, E. J. Moore, on an Indian, was first; H. Ives, riding a Reliance, took second place, and L. B. Day, on an Indian, was third, the time being 7:22. The single-cylinder event was won by Jack Barlalo, on a Harley-Davidson, who outdistanced W. B. Hemstrought, on a Merkel, and George Larkin, on a Reliance, who were second and third, respectively. Time, 7:37.

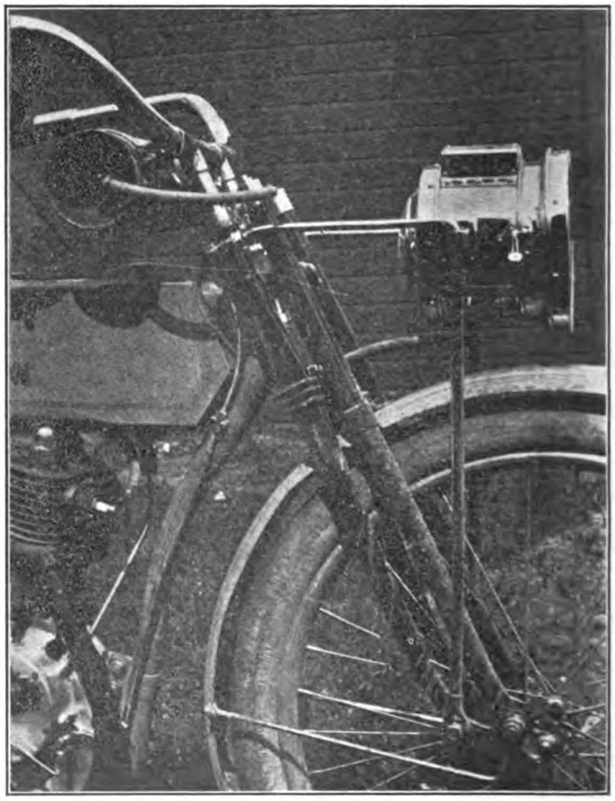
⁂

FAR SUPERIOR IN R. F. D. WORK.

AT Parker City, Ind., there are four rural route deliveries, three of which are made by the use of horse and buggy and one a la motorcycle. The four carriers start out at about 7:30 o'clock in the morning. The motorcycle carrier returns about 11:30, while the other three do not reach town until between 2 and 3 o'clock in the afternoon. The motorcycle user, Merle Patrick, recently established a new record for his route, covering twenty-seven miles and making 134 stops in just two hours.

⁂

ARTHUR A. ROCKEFELLER, of Minneapolis, sends in the photograph reproduced below, showing how he has fitted his Harley-Davidson with a head light and Prest-O-Lite gas tank. The arrangement, as will be seen, is quite ingenious, convenient and at the same time durable.



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J. Leo Sauer

CIRCULATION THIS ISSUE...............6,350

NEARLY ALL ENDORSE THORNLEY.

NOW that the differences of opinion growing out of the F. A. M. Competition Committee's chairman's attitude regarding racing on eight-lap tracks has crystallized into a practically unanimous admission that his stand was the proper one to take in the premises, there is little more to be said on the subject. We desire, however, to give publicity to the resolutions adopted by the Rhode Island club which, we believe, voice the views of all of those who regard the matter in a dispassionate and unprejudiced way. These resolutions were adopted without dissent, the club voting to uphold Chairman Thornley's decision. The sentiments expressed in these resolutions are as follows:

"We quite uphold the decision of the chairman of the Competition Committee of the F. A. M. in not granting a sanction for motorcycle racing on the eight-lap bicycle track just completed in this city. This club numbers among its members five of the leading motorcycle dealers of this city and most of the old time riders in this vicinity who have taken part in the races previously held here, and they condemn this track as unsafe for motorcycle racing, and not one man on our racing team, as much as they enjoy the sport, would risk his life in a race upon it. The Executive Committee of this club feels that to promote motor racing on it would be detrimental to the sport, owing to the accidents that surely would occur, one having taken place at a try-out at a time when there were only two machines on the track.

"We feel that it is much better, as far as this bicycle track is concerned, that such activities be upset now than after a number of accidents have occurred, with probable fatal terminations, and motorcycling be looked upon as a hazardous sport. The motorcycle has had an up-hill fight in the East to gain the popular prestige it deserves, as it has been looked upon by the general public as a vicious demon and a detriment to public safety and the riders' lives as well. The public is just beginning to realize that the motorcycle is of some value as a quick and safe means of transit, as well as one of the finest of sports, and it would be an injustice to the manufacturers and dealers and the sport in general to retard its progress just to satisfy the speed craze of a few.

"We have had race meets in previous years on a local one-mile race track on which better time has been made than we believe is possible on this bicycle track, and with the danger to the amateur practically eliminated, and we think it will benefit the sport to stick to this one-mile track until one more suitable for motors is erected. As for some of the boys being 'hot under the collar,' we really believe that if they saw one motorcycle meet on this new eight-lap track, they would wish that they had never got 'hot' in the first place. It is to be hoped that the F. A. M. Competition Committee will stand by its decision and not grant sanctions for any motorcycle events, except exhibition riding, on the track in question."

* *

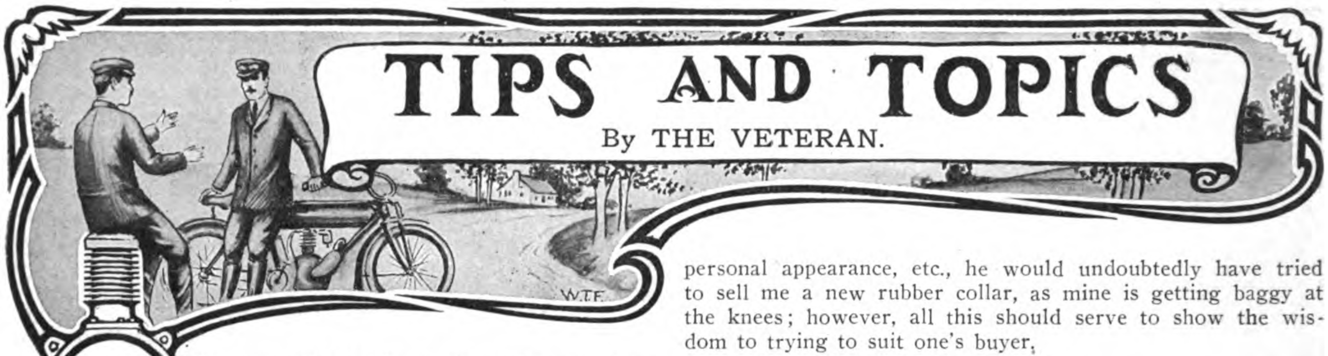
ONE WAY TO BOOST.

WE note from the experience of many individuals that very few really anticipate the pleasures which attach to motorcycling. We are confident that if the average young man clearly knew just how much good and wholesome sport he could derive from riding a motorcycle, the present day demand for machines would be simply tremendous. In other words, the situation is still such as to require plenty of missionary work on the part of those who are already riders. It is well enough to simply explain to the casual bystander the mechanism of one's mount, but it is much better to devote a few seconds to elaborating on the recreation features which are open to a motorcyclist. Treat your questioner kindly. Impress upon his mind the fact that the modern motorcycle is an up-to-date piece of machinery, easily operated, with practically no danger to the rider. Some riders, probably to exaggerate their own importance, seem to make it a practice to emphasize complications; they would rather tell about the troubles they have had than the enjoyment which they have derived from the use of their machines. This sort of thing gives very little satisfaction and rather retards than boosts the sport. With the improvements which have been made in motorcycle construction during the past two or three years, it certainly is not necessary to stretch the truth in order to assure the stranger that, if he is in search of healthful recreation at a moderate price and maintenance expense, he cannot do better than purchase a reliable motorcycle.

* *

TRADE PROSPECTS EVER BRIGHTENING.

ACCORDING to the latest available statistics, says *Motorcycling* of London, there are 75,000 motorcycles speeding over the roads of the United Kingdom. Seventy-five thousand to an age accustomed to thinking in millions may not at first sight appear a number of any particular magnitude, but when the total is submitted to analysis, no one but the most jaded frequenter of the statistical highway can fail to appreciate its immensity. In 1904 there were only 21,000 motorcycles in Great Britain, and an advance of 240 per cent. in the course of five or six years is most significant, to say the least, and clearly indicates the development of the sport in this country. In fact, there is every reason to believe that its progress will be even more rapid in the United States than in England. Their sole advantage is that of better roads, otherwise the conditions all favor this country. Something like 25,000 machines will have been produced in the Union before the close of the present year; that will mean a practical doubling of the number of active riders at the end of last year. Considering the fact that business in general has not been particularly good, these figures are encouraging, especially since the average manufacturer has been unable to supply the demand.



TIPS AND TOPICS

By THE VETERAN.

IN a very able article on the selling question, at the close of last season, Mr. R. S. Morton spoke of "fitting" every individual with the particular machine suited to his needs. Certainly this is the correct viewpoint for the agent or dealer in the matter. Too often does one hear of some novice who, instead of investing in a moderate-powered mount at the outset, is overpersuaded to invest in a huge twin. I came across a case like this only the other day. The result was that a too self-reliant beginner on his first speed-burst used a fence as a brake, so to speak. This was, of course, duly headlined in the local papers and the "rider" was quoted as saying that a motorcycle was more dangerous than the worst-tempered bronco ever hatched. I had occasion to meet the hero of this incident later and sounded his views on the subject. He had sold the remains of his steed and condemned *all* motorcycles from A to Z. To his distorted imagination, even my poor humble little lightweight was some kind of high-colored infernal machine. I took him for a ride in a high-powered automobile, more to soothe his nerves than anything else. In about ten minutes he was talking of buying an automobile. I stopped the car and told him that until he could manage a motorcycle it would be rank suicide for him to attempt any experiments in automobile driving, but he went away unconvinced and is now busy studying every automobile catalogue he can lay his hands on —this in spite of the fatherly advice which I gave. Now, I have driven cars and motorcycles for more years than I care to think of and, without any hesitation, would say that the motorcycle is by far the *safer* to drive. With a bulky car one will hit things which can be dodged by a motorcycle rider. The secret of the whole thing is that safety often lies in dodging obstacles, particularly at high speeds, when the brakes may or may not be enough to pull up. I have had my "quota" of accidents, both with cars and motorcycles, but I can safely say that I have certainly *got out* of more tight places when on a two-wheeler than when driving a car. To revert to the question of "fitting" a man with just the type of motorcycle to suit him, it is plain that had this been done in the case I have just cited, the buyer would have been an enthusiastic booster now, instead of a husky knocker. The agent who sold him the machine was gifted with wonderful short-sightedness for, in gaining the small extra commission by selling the more expensive mount, he has lost considerable business which would have resulted from a judicious sale. Of course, there are exceptions to every rule. One *might* find a novice who could handle a twin cylinder with ease at the very outset, but this is far from likely. The old proverb about learning to walk before trying to run is very applicable here and the novice who has set his ambitions on a speedy twin would do well to take this lesson thoroughly to heart and be content to learn the eccentricities of the motorcycle from the saddle of an humble 3½ h. single. To the agent or salesman, therefore, I would reiterate Mr. Morton's able advice as to selling a man something which he actually needs and which will suit him. Otherwise, one will have as bad a case as that of the man who walked into my office and tried to sell me a safe—presumably to keep my carfare in. If the salesman had studied my needs from personal appearance, etc., he would undoubtedly have tried to sell me a new rubber collar, as mine is getting baggy at the knees; however, all this should serve to show the wisdom to trying to suit one's buyer.

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Bearings Require Some Attention.

Generally speaking, ball-bearings, once they they are properly adjusted, will run for an indefinite length of time, without causing any trouble and without requiring any further attention than an occasional inspection and replenishment of the lubricant. However, in certain cases outside conditions, contributing to a loss of proper adjustment or the presence of a great deal of dirt or road grit, may cause them to become disordered much sooner than should be the case in theory. In that event the balls show a tendency to fall to the bottom of the race and when the play becomes considerable they are liable to get off their track. When pressure is again brought to bear upon them they must be forced back into place with a certain amount of resulting wear on the edges of the ball-race and a liability of loosing or cracking the balls in an extreme case. On account of this remote possibility it is well to inspect all such bearings as frequently as possible, taking care to see that there is no more play than is absolutely necessary, and that the bearings are not disaligned so that the load falls unevenly on opposite sides. A few years ago I owned a motorcycle the front wheel of which was always giving trouble, for, no matter how carefully I adjusted the bearings, they were loose again in fifty miles. I knew there was something radically wrong, but I could find no explanation of the matter. The forks were of the plain girder type and the closest examination showed the bearings to be in perfect order. I chanced on the solution when I was cleaning the machine, for I noticed that one fork girder was about a quarter of an inch in front of the other. This may have been the result of some fall or, on the other hand, a structural defect in the machine. When the forks were straightened out, the bearing trouble disappeared; so it is obvious that in this case the load did fall unevenly, in fact, there must have been a continual twisting action on the bearing which caused the trouble; it speaks well for the bearing that it did not grind to powder under the uneven strain; certainly only the continual adjustment which it received at my hands saved it. In these days of luxurious spring forks, it is not nearly so easy to detect a loose front-wheel bearing, so it is well to carefully "feel" the front wheel adjustment from time to time.

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Friction, and One of Its Symptoms.

In order to satisfy themselves as to the operation of lubricating oil, many engineers open the cylinder at intervals and note the conditions of the surface. Satisfaction is generally felt if they find the inside of a cylinder polished like silver, or if it has a bright, smooth surface, "like a mirror," as some express it. Now, this is not by any means the condition the cylinder ought to be in if it be well lubricated. This statement may be considered a heresy by most people, but it is easily defended. Suppose an engineer found bright streaks on opening the cylinders of his engine, he would at once conclude that these spots were the result of friction and that an insufficient film of oil had got to these places. This would be a perfectly natural conclusion; but, strange to say, if he finds the whole surface of his cylinder polished, he does not for a moment think that it is in any way caused by friction, rather the reverse; he gives credit to his lubricant, quite ignoring the fact that a cylinder is never polished brightly until friction does it when the engine is working. It is certainly a strange thing that, to many minds, friction in a cylinder is only associated with scratches or scoring of the surface. As a matter of fact, it is very seldom that friction shows itself in this manner; it is almost entirely displayed in a smoothing effect, especially if the metal is good. A well lubricated cylinder ought to have a rather dark-looking surface, smooth, but with no signs of bright polish, even if coated with oil. The slightest rubbing with a polishing rag would produce a bright surface on such a cylinder, thereby proving that the lack of polish is due to the absence of friction. In addition to the "oil polish" referred to above, we have the smoothing and polishing effect produced in ammonia cylinders of refrigerating machinery, the "water polish" frequently observed in marine engines and in pump cylinders, while to these may be added the "graphite polish." The water polish seems to be a thin, hard skin formed upon all sliding surfaces of engines where the water of condensation furnishes the only internal lubrication. This gives remarkably smooth surfaces, though rapidly lost if the engine is allowed to stand idle, as the polish rusts very quickly, resulting in more harm than good. The "graphite polish" is different from any of the above. In the cases mentioned before, the polish is obtained by rubbing off the roughness of the metal. Graphite polishes, by filling in the grain of the metal, just as fillers and varnish polish fill a surface of wood, cannot be regarded as an evidence of friction. It takes some time to acquire an oil or water polish, and it soon rusts, cuts, or otherwise disappears. Not so with a surface finish supplied by flake graphite. It is easily obtained, easily maintained under all conditions, resists rust and corrosion, and is entirely unaffected by heat or moisture.

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Simple Hints on Carbureter Adjustment.

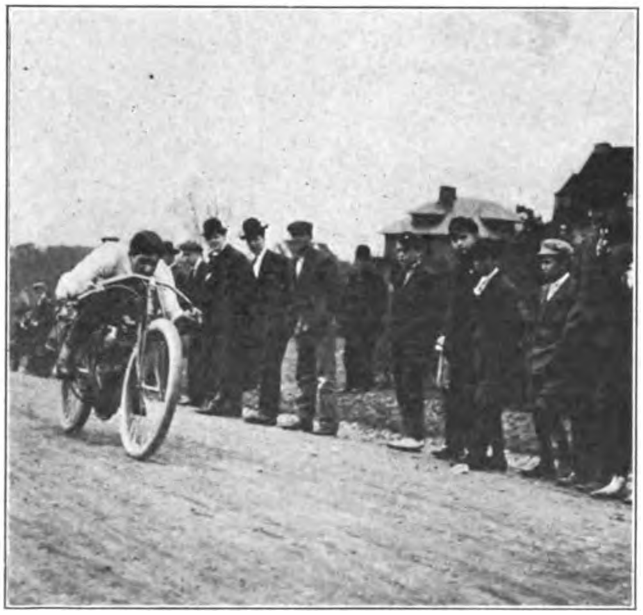
Barring what some riders term complications in magneto ignition, when the whole thing is in reality remarkably simple, the carbureter is generally considered by the uninitiated as being the greatest "terror" to the unmechanical mind. The very best advice which I can give on this subject is to write to the manufacturer of one's carbureter, naming the type or model, or, if this is not known, the engine or machine to which it is fixed. Generally speaking, these booklets are chock full of useful information and sectional drawings, so that the "innards" need no longer be a mystery to the rider, while the adjustments are dealt with in a clear and exhaustive manner. Every carbureter manufacturer of note takes care to print these booklets, and nothing pleases them better than to send these instructions along direct to the user, for by doing so the makers feel more assured that the best results will be obtained from their carbureters, whereas to have an owner fooling round in the dark, as it were, is likely to produce bad results and perhaps a probable condemnation of a good article. However, I can give some good stereotyped hints as to diagnosing a carbureter and its adjustment. First of all, jack the motorcycle up on the stand, start up the engine and open the muffler cut-out. Black smoke, together with red flame, denote that the mixture is too rich. Yellow flame shows that the mixture is too weak. Bright blue flame, together with a clean exhaust and a well emphasized "note," indicate that the carbureter is correctly adjusted. There are some other signs which also denote carbureter trouble. Back-firing in the intake pipe, for instance, can be taken to denote too weak a mixture, although it must be borne in mind that if an automatic inlet-value is used, this might denote a weak inlet-valve spring. A "shuffling" kind of noise at the air intake or a sharp whistle is likely to be caused by a restricted air-opening, even though the usual indications may not reveal any incorrect adjustment. Continual flooding of the carbureter when the engine is running may be due to the float having "sprung a leak," or become soddened and clogged with gasoline; the float needle-valve may not seat properly, owing perhaps to grit or dirt, or because grinding in may be necessary, or even it may be that the stem of the needle-valve is slightly bent. In point of fact, if a rider will learn the value of carbureter adjustment first of all, then that of the setting of valves and their spring tension, and, lastly, the preserving of perfect compression, he may rely upon himself to "tune up" his machine at any time to "concert pitch."

* *

Different Species of Knocks.

It often seems peculiar to the uninitiated why a worn connecting rod sets up a knock in the engine. It would seem that the thrust on the crank pin was continually in a downward direction in all four cycles of operation. It is argued from this that the top half of the bearing is always pressing firmly against the crank pin and that it would be impossible for there to be any up and down movement between them, and therefore no knocking could result. This theory is in no way new and has been brought forward time after time, yet if one goes into the question in an analytical way, one can clearly see that the argument is erroneous. Undoubted wear in the bearings does set up knocking and also considerable vibration. The pressure is on the top half of the bearing on the compression, firing and exhaust strokes, but the conditions during the inlet stroke seem to be entirely overlooked in this argument. One can see that then the crank pin has to pull the connecting rod, which means that pressure must be suddenly transferred to the lower half of the bearing. The cause of the wear is the result mainly of the severe downward thrust from the firing stroke, but it is the transference of pressure to the lower half of the bearing when the crank has to do work on the piston that sets up the knock.

One can easily differentiate between the knock caused by a loose connecting rod bearing and the types of knock arising from other mechanical defects. There is a peculiar rattle about this knock which gives it away, especially when the engine is speeded up. One learns in time to pick out the various sounds of disarrangement or wear and tear by ear alone; it is the "experientia docet" of motorcycledom.



R. S. Porter, on 7 h. Minneapolis, Winning Hill Climb Recently Held in Minneapolis.

JUST HOW TO GRIND IN A VALVE

By THE DOCTOR.

THERE is a right and wrong way of performing so simple a job as grinding in a valve, and one reason why amateurs don't show up so well in sprint events is that they make a muss of this very simple operation. For instance, how many readers have a look at the valve stem while they've got the valve out? Yet the chances are that its stem is coated with dirt and carbonized oil, and very possibly the stem has been binding a little in its guide, and has a bluey or "fired" appearance. If it is allowed to go back in this condition, one of two things will happen: Either the stem will finally jamb up altogether, when something's got to happen—probably a stripped timing gear; or else the grit in the deposits will grind out the diameter of the valve guide, when there will be a hefty airleak in the case of a mechanical inlet valve, resulting in a false mixture and starting difficulties. Therefore, overhaul the stem when the valve is lying about loose on view. How many readers diligently grind a badly pitted valve in for an hour or so, and replace it without verifying the clearance between its toe and the tappet? Some engines don't "worry" about this, I admit; others are timed to a hair, so to speak, and if you leave space enough to slip a large chisel between valve toe and tappet, pop goes half the kick of the old gasoline soak. Therefore verify the clearance whenever you do a graft at grinding; and don't make it bigger than necessary. We used to say there ought to be 1/32 in.; but some modern engine builders employ metal of high grade, which don't expand perceptibly under heat. I have such an engine myself, and if there is room to slip even a bit of card in between, that engine doesn't hop as she should. With her I adjust up so that I can just woggle the tappet with my fingers when the valve is right down.

Again, we know what a broken valve is, don't we? Nice sort of hoodoo to be loping round inside the cylinder fifty miles from anywhere, and a hole punched bang through the piston as well. So squint round that loose valve, especially where the head joins the leg, and make sure there's no sign of a crack. Or again—if the valve stem looks "fired," it's quite on the carpet that the stem has buckled a trifle; and with a bent valve stem you may use a ton of carborundum and grind for three years without getting a gastight fit.

After we have watched all these chances to make a prize juggins of ourselves, we may face the real business. First, plug up the aperture leading to the cylinder with a blob of wadding; if abrasives get in, they will grind the piston, cylinder, and score parts which are supposed to have had all the grinding they need before they left their birthplace. Secondly, get the best and finest abrasive on earth—carborundum, of a fine grade. You *can* grind a valve in with road dust or chicken grit—I have done it myself; but the finer and keener the abrasive, the shorter and cleaner the job. Mix it up in a paste with a sputter of oil. Smear the valve with it—not too thickly. When you get your strong right arm at work on the top of the brace; you'll squeeze out all the abrasive barring a fine film; and what you waste, you have got to recover from the inside of the engine before you can burn up the road again. Then grip—*not* a screwdriver, sonny. No man ever got heavy central pressure with a screwdriver a foot long. Take a piece of cycle brake rod or similar metal tube, about 18 inches long. Grind or file the business end to a broad, flat finish; put a double rectangular kink in the far end, high enough up to clear your tank; skin a recess round the top end on the lathe; drop a cycle bell dome over it to make a bearing for your hand; and so after twenty minutes work you are provided with a first-class brace, which will grind valves in truly till the clouds roll by.

Now to work. Don't skim that poor valve round as if you were out for a record on a lap track. Just half a dozen good turns under pressure, and then lift it up, and turn the valve round to avoid "ringing"; if you never alter the lie of the valve, maybe a knob of abrasive gets nipped at a certain point, and makes a bright score all round on one level. Here's a tip—thread a light spring (inlet valve spring will suit) round the valve stem before you drop the valve into place; if you ease your pressure on the brace every few turns, the spring will raise the valve clear of the seat, and a whisk of the brace will turn it before you restart grinding. Keep on as described, till the whole of the contact surfaces of valve and seat are polished silver-bright—no black spots allowed. Then if you are out for blood against the boys, polish up with liquid metal polish before chucking work. The most important job comes at the finish. Recover every atom of abrasive from the valve chamber before you screw your caps home, hang up the brace and go in search of the refreshment you have so richly earned.

D. K. DE LONG, the Indian agent in Chillicothe, Ohio, is the man behind the gun in the photographs reproduced below. These two pictures were taken during a recent meet, of which De Long was promoter, referee, starter and, practically, everything except the competitors. The lower picture shows the finish of the ten-mile open, which was won by Harry Nixon of Dayton. Irving Howich, on an Indian, won the three-mile event for machines under 20 cubic inches and the five-mile in the same class. Dale Trowbridge was first in the three-mile, 26.96 cubic inches class. S. W. Martin took first honors in the five-mile event for twins under 38.61 and in the five-mile handicap. The second five-mile event for machines under 20 cubic inches was won by Albert Aid. In addition to the ten-mile open, Nixon also won the pursuit race. All the winners rode Indian machines.

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SEVEN members of the Santa Ana (Cal.) club, headed by R. M. Brinckerhoff, finished the Decoration Day century run to San Diego. There were twelve starters, but only seven reached the end of their journey and but four of these arrived within the six-hour time allowance. All rode Excelsiors. Their times: Brinckerhoff, 4:20; Stanfield, 5:05; Freeman, 5:28; Spangler, 5:46.

Brinckerhoff made an exceptionally good run. Besides negotiating the 102 miles in 4 hours and 20 minutes, he dismounted only once, and then because of a stalled automobile blocking his path. Brinckerhoff was first in the Los Angeles-San Diego run a year ago.

ERNEST GUILMET has succeeded R. A. Pickens, who resigned, as president of the Dallas Club. George Hunter has taken the place of Walter Ruff as vice-president.

THE TWO-WHEELED MOTOR THEN AND NOW

A NOTABLE feature in the development of the motorcycle engine is its marked increase in dimensions and power since the advent of the earlier models. The first American motorcycles, like the early types of American automobiles, were largely copies of European machines. The leading pioneers of motorcycle construction in Europe were De Dion, Clement, Werner and Astor.

Of these, the motors of the first three named were in many respects identical. All were, measured from present standards, extremely small, of high compression and enormous speed. One of the De Dion motorcycles, for example, had a bore approximately 2¼ inches, with a stroke of only about 2⅜. In fact, these motors could fairly be used today as watch charms significant of membership in the F. A. M. The Astor motor was a much larger engine and much more closely resembled those of the present day.

The pioneers in American motorcycle manufacture were the Thomas, Mitchell and Orient companies. The first Thomas closely resembled the European Werner with a midget motor secured to the lower frame tube. The Mitchell was almost identical except in size, the dimensions of the motor being 3 x 3. The comparative weakness of these engines will be readily understood from a moment's consideration of the belts used for transmission purposes. They were ordinary cut leather belts, such as are commonly used on sewing machines and similar light machinery; in fact, the maximum power of the little Thomas motors could seldom exceed five-eighths to three-quarters mechanical horse power. The Mitchell motor, being a little larger, was slightly more powerful, but the machines exceeded the Thomas in weight sufficiently to hold the balance about level.

The Orient was a radically different proposition. It was a big, heavy machine, weighing close to, if not in excess of 300 pounds. Some of them were fitted with Astor engines 3½ x 4 or thereabout. It had a flat belt drive and except in the matter of excessive weight resembled some of the present day machines.

The Importance of Proper Valves.

A single cylinder gasoline motor that will at 1,000 r. p. m. deliver 5 horse power has barely power enough to keep itself turning over running as slowly as 200 r. p. m, and at 500 seldom delivers over 20 per cent. of its maximum power. Hence, if a motorcycle is equipped to travel steadily and comfortably at fifteen miles per hour it must be provided with a motor that will deliver power far in excess of ordinary requirements were the machine allowed to travel from fifty-five to sixty miles per hour.

In discussing the features of a successful or satisfactory motor one of the first to be considered is the valves and valve action. These must be of ample size to admit the vapor charge to the cylinder freely and without too rapid travel through small passages. The exhaust valve must be large enough to allow the free and almost instant emission of the burning vapor. Delay in this inevitably results in overheated motors, pitted valves and numerous troubles resulting from these conditions.

Timing of Exhaust Valve.

An essential feature is the correct timing of the exhaust valve. It must open sufficiently before the piston reaches the end of its stroke to allow pressure in the cylinder to drop to zero by the end of the stroke. Delayed opening of the valve will result in overheating, pounding and severe strains on every part of the engine, and if the piston is allowed to arrive at the end of the stroke under pressure the effect is bound to be disastrous to bearings, crank shaft and even to the cylinder and piston. If the opening is too early a part of the power will be lost thereby.

After the valve action, a fundamental element of the motorcycle engine is lubrication, and this probably more than any other feature has been developed and improved upon within the last few years. In the earlier types of motorcycle engines the oil was delivered to the crank case generally by gravity. This is still true in some of the lesser known types, but the more advanced machines now serve the oil by means of gear-driven pumps.

In some instances this oil is delivered directly to the crank case and the system of lubrication remains the same as formerly, except that the supply of oil is positively maintained. In others the oil is admitted through ducts or passages by which it is carried more directly to the points of friction.

After all the main consideration is the quality of the oil. No matter how effective may be the oiling system the results will be nil if the oil be not of the proper character and consistency. Poor oil is the dearest commodity the motorcycle owner can buy. This is a matter that can not be given too much attention, and motorcyclists should either deal with people of known dependability or use oil which has been carefully tested and found adequate to the requirements.

Ignition Types and Troubles.

If trouble arises, nine times out of ten it is charged to ignition. That element of the motorcycle engine, while not really entitled to the bad reputation it seems to carry, is often the seat of trouble, and it is well for the rider to familiarize himself as thoroughly as possible with that part of his machine. Of the two types of electric ignition commonly termed as "make and break" and "jump spark" systems, the jump spark is so nearly the only system now in use that the other is hardly worthy of consideration. The jump spark system may be again separated into battery and magneto types.

In the battery system, current is primarily generated in a battery, the cell in most common use being what is generally termed a dry cell. This current is passed through the primary winding of what is known as a high tension coil. The effect of this current is to induce a high tension secondary current which is carried to the terminals or gap of the spark plug, at which point it leaps the gap, giving a spark varying in heat and intensity with the volume of the current.

If the magneto is used the coil is dispensed with, the magneto supplying the current with sufficiently high intensity to cross the gap in the spark plug without the use of auxiliary coils or condensers.

Cleansing with Kerosene.

In cleaning use kerosene. It is cheap. Use it freely. First draw off the oil from the crank case and flush it out well until the kerosene will run out of the case clean and free from carbon or residue. Then flush out the cylinder; put from three to five tablespoonfuls of kerosene in the cylinder through the spark plug opening and run the engine by pedaling. A good deal of this kerosene will be forced out through the exhaust, but some will be forced down past the piston, cleaning out the carbon deposits around the piston rings.

Keep this up for some time. It will be surprising the amount of dirt that can thus be washed out of an engine that has been apparently clean. In fact, the carbon that does the most damage is not that in the cylinder head and which by its heating when running causes pre-ignition, but the deposit of carbon and oil that dries around the piston rings, causing them to press forcibly instead of easily against the cylinder walls, thereby causing cutting and many other troublesome results.

—F. B. Hart, in the Indianapolis News.

OIL AND SOME OF ITS PROPERTIES

"THE importance of the efficient lubrication of gas engines, and especially of high speed gas engines," said recently one of the experts connected with the Columbia Lubricant Company, 78 Broad street, New York, makers of Monogram oil, cannot be overestimated. The friction of the moving parts must be reduced to a minimum, the surfaces of the moving parts kept free from any gritty matter that would have an abrasive action, and, in the cylinders, the lubricant must act as an effective seal between areas of higher and lower pressures. To maintain this action and accomplish these results the oil used must be of the finest possible quality, free from acidity that would pit the metal surfaces, free from any inclination to become 'gummy' and stick when partially evaporated, and also free from a tendency to leave any solid deposit when completely evaporated."

Before the subject of lubrication had been as fully studied as it is now, it was thought that an oil of high viscosity gave better lubrication than an oil of low viscosity, irrespective of the work it had to do.

Viscosity Should Vary.

In regard to viscosity, which is the relation between adhesion and cohesion of an oil, the most suitable oil under all circumstances is the thinnest oil that will stay in place and do the work. For some work an oil of higher viscosity is needed than for other classes of work, but this rule governs all cases, and the work to be done determines the most suitable viscosity of the oil to be used.

These are the general principles of lubrication, and it is now necessary to study the specific physical conditions that exist in a gas engine and adjust the general principles to the conditions.

In a gas engine cylinder there is a combination of conditions that produce at the same time high temperatures, high pressure and frequent ejections of gaseous matter from the cylinders through the exhaust valves. The oil used to lubricate gas engine cylinders must therefore be able to withstand high temperature, to remain an oil for sufficient length of time to lubricate thoroughly the walls of the cylinder and act as a perfect seal, and should also, when finally evaporated, pass out with the exhaust and leave no solid deposit.

The type of gas engine used for motorcycles at present is the "four cycle" type. In the "four cycle" type there are four distinct strokes of the piston to every explosion of gas. The cylinder sucks in a charge of vaporized gasoline mixed with air on the first stroke, compresses the charge of the gasoline on second stroke, explodes and expands the charge on the third stroke, the real motive stroke, and on the return, or fourth stroke, exhausts the spent charge through the exhaust valves and is then ready to take in a new charge. The action is then repeated as long as the engine is in operation. This action in the cylinder produces high temperatures, and also violent fluctuations of pressure, during which all the gaseous contents are ejected through the exhaust valves. It will be seen, therefore, that the oil must be able to stand these conditions and do its work of lubrication during the entire period of each cycle.

Types of Oil Injectors.

There are many forms of oil injectors in use on the market today, but the most important types are the "splash" system and the "force feed." Variation in type only means variation in the method of applying the lubricant to the surfaces to be lubricated, and though it is a most important point to have efficient distribution, yet the high lubricating value of the oil introduced is of greater importance, because many types of injectors will give good results with a proper oil. The injectors distribute a measured quantity of oil at equal intervals against the cylinder walls and the movement of the piston head makes the distribution uniform.

Let it be presupposed that the oil has entered the cylinder and has reached the heated walls and is being distributed and used by the piston head in its travels up and down the cylinders. Unless the oil can stand a relatively high temperature before it is gasified, or, in trade terms, unless it has a high "flash point," it will become a vapor and cease to be a lubricant, and therefore be of no value for lubrication, as, according to our previous definition, it must "stay in place and do the work."

Vaporized Oil Increases Pressure.

There is another very important point in the necessity for the lubricant staying in the form of oil during the first half of the cycle, and this is that an added pressure is caused by the lubricating oil becoming vaporized. The pressure that the charge of gasoline vapor and air will stand without spontaneous explosion is a fixed constant, depending upon the richness of the mixture of the charge. the temperature of the cylinder walls, and the pressure exerted on the charge.

The pressure in the cylinder should be under the control of the person operating the engine and not liable to sudden changes due to the lubricating oil. It is generally conceded that the charge does not explode as a unit, but in layers, and therefore by "advancing the spark," which is advancing the time at which the spark takes place, a layer of gas is exploded, producing a greater pressure on the charge during the final compression, and, consequently, generating more power.

The pressure to which the charge is compressed is a fixed constant in the usual type of gas engine used for automobiles, and therefore increase is only obtained, when necessary, by advancing the spark. If there is an added pressure, due to the lubricating oil, the charge may be prematurely exploded, and the manufacturer of good lubricating oil for gas engines takes this point into account when making his oil.

Cold Test.

Every oil used for lubrication has a critical temperature at which it becomes solidified and loses its fluidity, or ceases to flow. This critical temperature is called by the trade the "cold test" of the oil. An oil does not suddenly become a solid mass when its temperature is lowered, like, for instance, water becoming ice, but gradually thickens at a temperature a little above its "cold test" until it becomes solid.

It can very easily be seen that any system of introducing oil into the cylinders depends on the uniform fluidity of the oil, as it has to pass through the feed pipes, etc., and a variation in fluidity would make the speed at which an oil is introduced slower or faster, according to its relative fluidity. The size of the feed pipes, etc., remain a constant, and therefore the fluidity of the oil should also remain constant to produce uniform results.

It is therefore necessary that the "cold test" of an oil, that is, the temperature at which it ceases to flow, shall be considerably lower than the temperature of the atmosphere, and as at times the atmospheric temperature becomes very low, it is an essential feature in an oil for gas engine lubrication that it shall be able to withstand such temperatures and produce uniform results irrespective of external thermal conditions.

Another point to be considered is that as little solid matter as possible should be left in the cylinders. This solid matter is usually free carbon caused by the dissociation of the oil at the high temperatures of the cylinder. When the exhaust charge and spent lubricating oil are ejected and any considerable quantity of free carbon is left behind, this carbon is found in the form of buttons on the cylinder head, and on account of the heat, these buttons of carbon are glowing and furnish enough free heat to prematurely explode the charge while it is being compressed, and the result is a loss of further control of the timing of the explosion and consequent loss of power.

A perfect oil for gas engine lubrication should have the following points to make it of high efficiency under the conditions existing in a motorcycle engine:

It should be thin enough to quickly cover all the surface to be lubricated and thick enough to stay in place while the work is done; it should have a sufficiently high flash point, or point at which it becomes a vapor, to remain an oil during the first half of the cycle, and lubricate the cylinder walls during the whole cycle; it should not leave any solid matter or carbon on evaporation to cause premature explosion and clog the sparking plugs, etc. The oil should be low in "cold test" to insure uniform lubrication under all atmospheric conditions, and all of these points should be considered when judging an oil with a view to its suitability for gas engine lubrication.

RUN IN "LITTLE RHODY" NEXT SUNDAY.

AT the last regular semi-monthly meeting of the Rhode Island Club, held Friday, June 10, Captain Earnshaw announced a run for Sunday, the 19th inst., to Harmony, R. I., for a clambake at Colbin's Hotel, to which all riders are invited. The start will be made from Exchange place at noon. Incidentally, the meeting accepted three new members and discussed racing and club conditions in the State. President Domina, of the Providence Club, was in attendance and addressed the meeting. The club voted to hold an endurance contest in the near future and the racing committee has been instructed to work out all the arrangements. Directly after the club session the advisory board, appointed by the chairman of the F. A. M. Competition Committee, held a meeting. This board consists of President Domina, of the Providence Club; President J. B. McLaughlin, of the Rhode Island Club, and W. L. W. Hillman.

LEAVE NEW YORK FOR EUROPEAN TOUR.

C. C. HOPKINS, Indian agent in San Francisco, has shipped two machines to London for L. Scott and B. W. Upson, of Stanford University, who left New York on the 11th for a motorcycle tour of the British Isles and Europe. They go direct from New York to Ireland. In London the machines will be fitted with the equipment required by the English laws. From Cork the two Americans will travel northward and thence cross over to Scotland, going south in England, whence they will cross the channel into France. In France they will do the chateau country, thence work North and, if time will permit, they will visit Norway and Sweden, after which they will ride South again through Germany, Switzerland and then Italy.

DEAD HORSE HILL CLIMB.

B. A. SWENSON, of Providence, R. I., had no trouble in getting away with first honors in the Dead Horse Hill Climb near Worcester, Mass., on Saturday, the 4th inst. In the contest for single cylinder machines, he climbed the one mile ten per cent. hill in 1 minute and 19 1/6 seconds. In the twin event, he covered the same distance in 1:03. There were also two events for Worcester County riders. That for riders of single cyclinder machines was won by Howard Clark, on an Indian, in 1:43⅕. Edward Jerome, also on an Indian, finished first in the twin class, his time being 1:10 7/10.

RACE MEET AT LOUISVILLE.

JUNE 18 and 19 are the dates of a series of races, sanctioned by the F. A. M. and conducted by the Louisville Club, in connection with an aviation meet promoted by the *Louisville Times*. The races will be run on a mile circular track and there will be two events each day. On the 18th, there will be a three-mile open for trade riders and private owners with machines not exceeding 30.50 cubic inches, also a five-mile open event for machines up to the F. A. M. piston displacement limit. On the 19th, local trade riders and private owners will be given an opportunity to prove their mettle in a five-mile race for 30.50 cubic inch machines. There will also be a 61 cubic inch five-mile open, together with a one-mile exhibition by Fred Huyck. Silver loving cups are offered as prizes to the winners in each one of the four events.

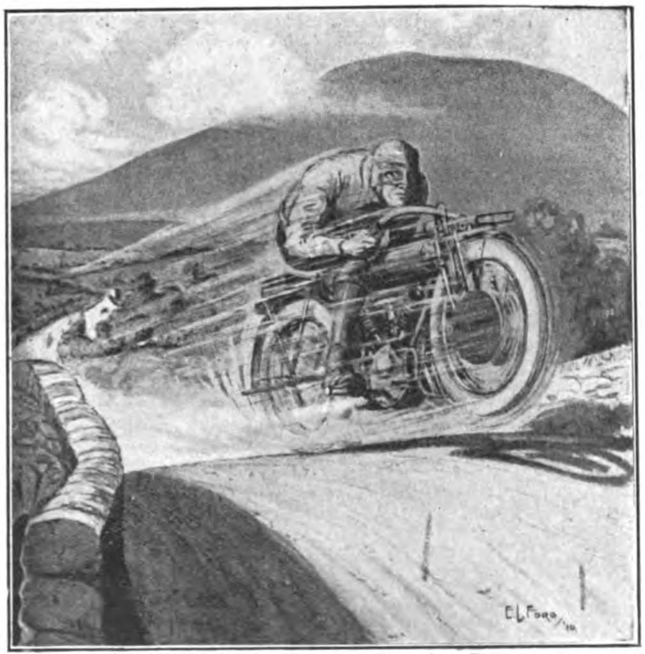
INDEPENDENCE DAY RACES IN LA SALLE.

A. B. PORTER, secretary of the Illinois Valley Motorcycle Club, at 937 First avenue, La Salle, Ill., will be glad to send entry blanks for the club's Fourth of July meet to anyone who may care to participate. There will be ten events, most of which will be open, among them a 5-mile free-for-all, a 2-mile for stock machines of the 30:50 class, a 3-mile for 50 cubic inch stock machines, a 5-mile handicap for private owners, 50 cubic inch stock machines, a 10-mile free-for-all, a 3-mile 30:50 free-for-all, a 2-mile free-for-all, a 3-mile for winners of the previous races and a mile consolation event for non-winners.

INDIANS STAR IN ENGLISH HILL CLIMB.

FOLLOWING the Tourists' Trophy Race, a climb was held on Snaefell Hill, the Isle of Man. Indian machines won every event in which they were entered. The first and second contest in which Indian riders were competitors, were won by T. O. Bentley, G. B. Evans being second in one race and C. B. Franklin in the other. Both Evans and Franklin also rode Indian machines. The free-for-all was easily captured by E. H. Lees (7 Indian) whose time was 8:55⅗, the course being six miles in length and containing several curves, including two very dangerous hairpin turns.

WHERE FRONT WHEELS LEFT THE GROUND.



Ballig Bridge—Tourist Trophy Race.

NOTHING TO THE STORY.

R. S. MORTON wishes to absolutely deny that he was in any way responsible for Charlie Murphy's decision to leave the police force to try his luck at a motor-paced racing stunt in vaudeville. It is quite true that Murphy sought Mr. Morton's advice in working out the act which, moreover, was successful in every way, and not a failure, as had been charged. The trouble lay in the cost of maintaining a company of twelve men and in carting the elaborate paraphernalia from place to place. The theater managers would not pay sufficient money to make it worth Murphy's while. These are the sole reasons why the "Mile-a-Minute" cop has applied for reinstatement on the force.

* *

INDEPENDENCE DAY RACING AT WILDWOOD.

UNDER the auspices of the North Wildwood (N. J.) Automobile Club, a race meet will be held on the North Wildwood speedway, Independence Day. There will be five events, all over a one-mile course, as follows: One for 30.50 machines, one for machines in the 50-inch class, two for machines up to the F. A. M. piston displacement limit and a time trial. The entrance fee is $1 and blanks may be had from W. G. Rhodes, 2208 N. Broad street, Philadelphia. The record is held by Walter Goerke, who made a mile over this course last year in 43⅗ seconds.

* *

LOUISVILLE CLUB AFFILIATES.

LOUISVILLE riders recently organized and elected a full staff of officers. Fred I. Willis, of Indianapolis, president of the F. A. M., was present and delivered an address which was received with such enthusiasm that the local men immediately voted to affiliate their organization with the national body. The following officers were elected: President, E. M. Hughes; vice-president, A. L. Ray; secretary, Charles Baumaster; treasurer, R. L. Davis. The directors are Peter Kline, L. W. Thompson and R. O. Rubel.

* *

RACES OVER GRAND PRIZE COURSE.

ARRANGEMENTS are being made by the Savannah, Ga., Club to hold a series of races on the Fourth of July. The meet will be held on a portion of the Grand Prize race course, comprising that section from Hainers bridge, Ferguson avenue and Montgomery cross roads, making a nine-mile course. There will be three races, ten, twenty-five and either fifty or one hundred miles, respectively. According to present arrangements, all of the events will be limited to single cylinder machines of not more than 4 h. p.

* *

AT a meeting called to order by Robert Stubbs and presided over by R. C. Sligh as temporary chairman, the riders of Birmingham, Ala., recently organized a club, electing the following officers: President, W. W. Huey; vice-president, R. L. Totten; secretary and treasurer, R. C. Sligh; directors, Robert Stubbs, R. E. Walthour, William M. Huey, R. S. Porter and R. C. Sligh. It is estimated that there are about 250 riders in the county of which Birmingham is a part, and the prospects of rapid growth of the new club are considered excellent.

* *

THE belated medals for the six-day race, twelve in number, have been delivered to the winners, who are as follows: New York team, first, three diamond medals; Harlem team, second, three silver and gold medals; Bedford, third, three silver medals; Flatbush, fourth, three silver and bronze medals.

* *

NEXT Sunday afternoon is the date set for the Guttenburg track races, postponed last Sunday on account of the rain. The New York Club's second quarterly trial, scheduled for Sunday, will be held at a later date, not yet announced.

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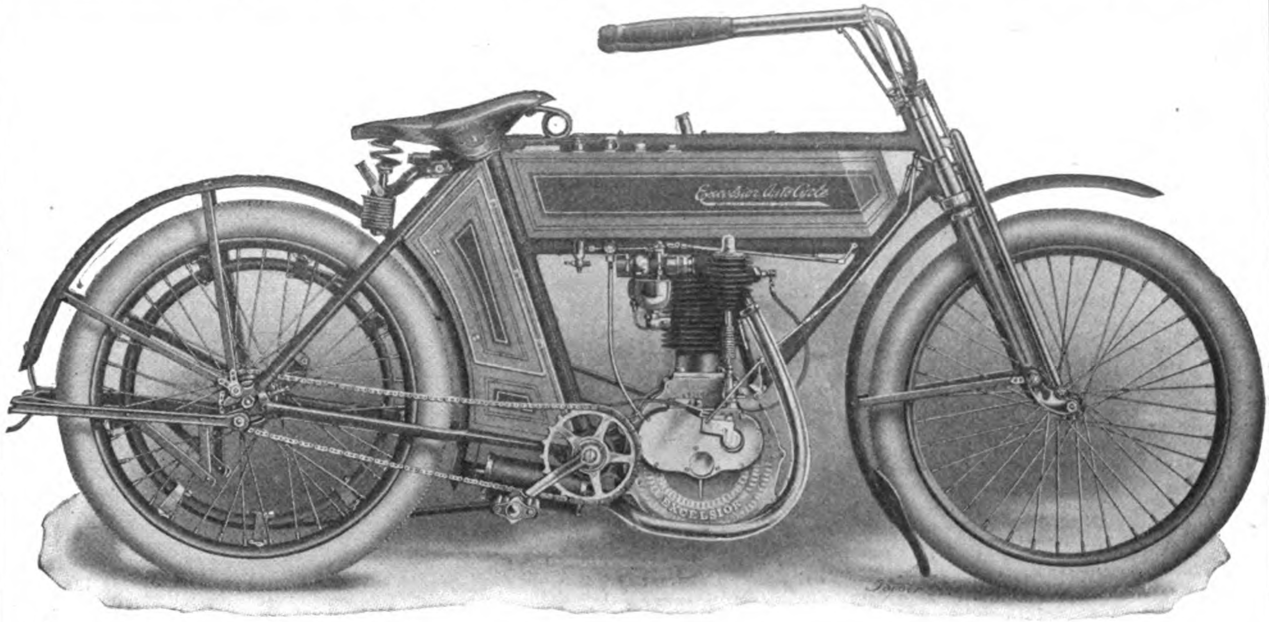
EXCELSIOR AUTO-CYCLE



WHEN you start for a day's run, the matter of seconds in time is of little importance in comparison to getting there and back without trouble or delay.

The record of the Excelsior Auto-Cycle is one of such unfailing dependability and endurance that it has earned a world wide reputation as

THE ONE THAT ALWAYS MAKES GOOD.

Every big road test and thousands of Excelsior Auto-Cycles in daily use prove the right to this title.

See your local agent or write for Catalog E 10.

EXCELSIOR SUPPLY COMPANY

ESTABLISHED 1876
RANDOLPH STREET BRIDGE, CHICAGO, ILL.
EASTERN DISTRIBUTOR: STANLEY T. KELLOGG, 2312 Broadway, NEW YORK

QUESTIONS AND ANSWERS

[illegible] to design a [illegible] small gasoline motor, to develop from ¾ [illegible] stroke to be 2½ ins., bore 2 ins.; fly wheel to be [illegible] as small as possible, but heavy enough to evenly balance the [illegible]. What would you consider necessary weight and diameter [illegible] of inside of cylinder is dome shaped (as in [illegible]. I am using valve-in-head type. What distance [illegible] from top of piston to top of cylinder, inside [illegible] to give the necessary compression? What length [illegible] connecting rod? I figure about 5 ins.

[illegible] this motor be built 10 ins. or under from bottom of crank case [illegible] cylinder head? If a motor of these dimensions could [illegible], what power could I obtain?

[illegible] stroke, dimension of compression space, weight of fly wheel, and what other dimensions could you give me? Would this [illegible] from 750 to 1,250 revolutions, and would it [illegible] develop near the rated horse power?

[illegible] G. S. ELLITHORPE.

In the first place, we should hardly think that a motor of the dimensions which you give would be any good for motorcycle [illegible] though it be a light-weight. You do not, however, mention whether you intend this for a motorcycle engine or not, but [illegible] assume that it is to be an air-cooled engine.

[illegible] of the flywheel would not be dependent upon the bore [illegible] but more upon the balance of the engine. Were we to [illegible] engine as a light-weight, we should be inclined to fit an [illegible] about 3½ pounds, the weight being contained as [illegible] in the rim of this flywheel, and to compensate for [illegible] would fit balance-weights on the other side of the [illegible] inside the crank case. The outside flywheel in the old [illegible] light-weight engine was about eight inches in diameter. [illegible] an engine of about 1 1-3 hp. and proved a most successful [illegible]

[illegible] point which has to be experimented with is the thermal [illegible] of the engine. If you wish to develop more horse power [illegible] number of revolutions, it would be better to make a low [illegible] but this is a matter which would be open for [illegible] small engine such as this will stand high compres[illegible] small compression space, even less than an engine of [illegible]

[illegible] the connecting rod would be 3¼ inches in length and [illegible] of the engine would easily be less than 10 inches, [illegible] account of the outside flywheel, as this would re[illegible] diameter of the crank case. If you wish the outside fly[illegible] internal balance weights be sure to make ample provi[illegible] the throw of the balance is not efficient as that of [illegible] therefore you will have to design your baffle plate [illegible]

[illegible] power the dimensions which you give would be all [illegible] certainly advise making the engine about 2¼ [illegible] though a light weight, as we consider 1½ horse [illegible] unless "undergeared," and the power at [illegible] engine would, of course, be far less than 1½ [illegible] this would be of no moment, as the design would [illegible] speed engine with a probable maximum of 2,000 [illegible] of an engine like this it is balance which [illegible] rules of size and weight.

Touring Information.

[illegible] that you say a rider named Riley has [illegible] coast to coast in a little more than two [illegible] contemplates a trip from this city to Portland, [illegible] this year. I am under the impression [illegible] miles, could be made in something [illegible] up-to-date machine, if attempted at the [illegible] you enlighten me on this subject or [illegible] with anybody who can?

[illegible] ALBERT W. JENSEN.

[illegible] in almost every State in the Union. [illegible] in summer; in fact, the writer took a [illegible] Canadian border. I went across the prairie [illegible] and Montana but took the train across the [illegible]

[illegible] to make my schedule, although it could [illegible] You must remember that a medium- [illegible] from New York to San Francisco, [illegible] This car sunk in creeks, [illegible] famous gumbo in your State, also [illegible] Creek, Wyo., had to be crossed [illegible] the route for this car, which passed through so many States, you should write to the Regal Company, Detroit, Mich.

The great thing is not to ride to any set schedule of time or distance, and be prepared to "rough it" and camp out in the open at times. The writer has spent ten or twelve nights on the open prairies, and ridden thousands of miles under the burning sun, with a five-gallon gasoline tank strung on his back, far away from civilization. In the absence of route maps, etc., it is a good plan to enclose some self-addressed envelopes and send these to the postmasters of the various towns, say about 40 miles apart. This will give you information that will be invaluable. You should select two routes and send a tabulated list of questions as to roads, gasoline and supply stations, etc., and then choose the best route shown by such details. Send us some photographs of your trip.

Racing Requirements.

WHAT are the qualifications of a racer? (2) Are side cars used on country roads with success, and what is the width of the track? A. J. HOWARD.

Comiskey, Kans.

Qualifications for a rider or a driver at a large race meet are a clear, steady, head, plenty of nerve, an ability to drive at all speeds with no wabbling, first-class physical condition, and a knowledge of the machine you ride. Knowledge of the sport comes with practice. Another point which the writer found very useful, which he learned in early bicycle days, is that when an accident occurs it is best to let oneself "go" with the limbs perfectly limp. We do not like to talk accidents to one who intends to go into racing, but a knowledge of these things is necessary. A drunken man can fall down in the street a half dozen times without hurting himself. The secret is that his brain is too clouded to give him the instinct to stiffen his limbs, which is a good thing for him, for if the limbs were stiffened in the fall, the chances of breakage of the bones would be greater.

Side cars are practical in every way and are made so that they can be used on moderately good roads with success, but the power of the machine has to be greater, and a two-speed gear is an untold advantage. It is true that a low-geared high-power mount will often pull a sidecar with success over give and take roads, but we strongly advise a two-speed gear, as it is more than worth the extra outlay. The width of the track of a sidecar and motorcycle combination is variable, depending on the make of the sidecar. There is no set standard. The tread is always less than the standard 56-inch wagon track, but this is no disadvantage.

Carbureter Requires More Air.

MY 4 h. machine will do 52 miles per hour on a damp day or night, but on a bright, clear day it cannot do better than 45. Can it be improper adjustment of carbureter? It is a single float feed device made by the manufacturers of the machine. I also notice this difference of power and speed when running at a moderate rate. J. J. WILLIAMS.

Philadelphia.

Your trouble is undoubtedly in the carbureter. Any carbureter will show signs which you denote under certain adjustments. If you cannot regulate your air supply it would be best for you to make a small adjustable extra air inlet on the inlet pipe, and thus give your engine more air. A simple way to make an extra air supply on the inlet valve pipe is to cut an oblong hole in the pipe and make a spring collar to fit over this. When running on a hot, clear day you can open this slot slightly and experiment until you hit the right mixture.

You will find that this will increase the power and speed to a great extent, but be sure to make this collar to fit the pipe so that it will not jolt open when you are not using the additional air supply. The best way to effect this is to straighten the ends of the collar about half an inch, bore a hole through this and fit a thumb screw so that you can tighten the collar at will in any position, even while riding. Be sure to make the fitting gas-tight. If you have an adjustment for air on the carbureter, give her more air on hot, clear days.

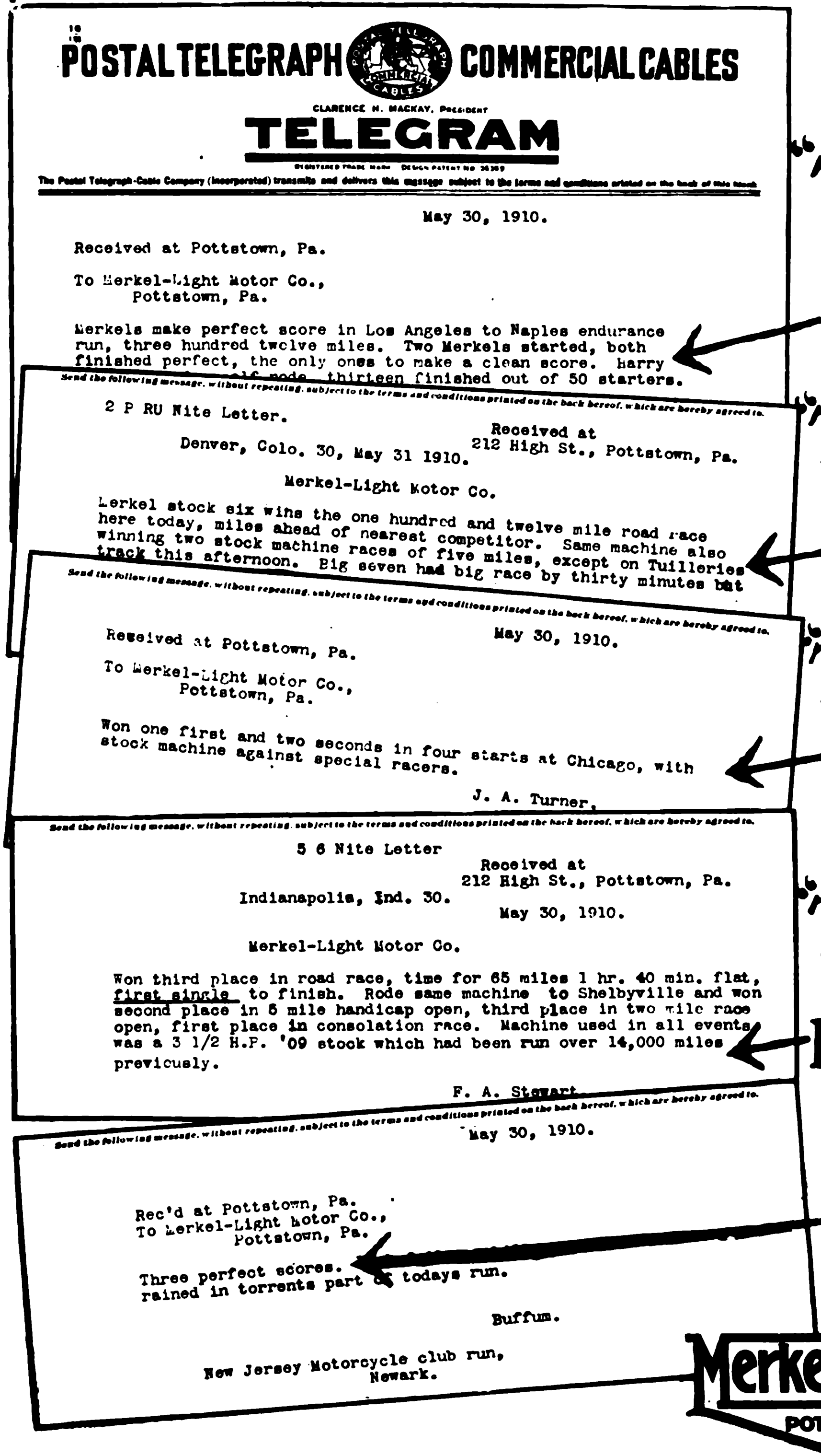
Magneto Cut-Outs—Licenses.

LOUIS LEROY, New York City.—Magneto cutouts are recognized as being quite efficient in at least two ways, namely, for economizing fuel as well as improving one's control of his machine. With reference to the "grounding" of the electric current, that term is used in automobile and motorcycle construction to express

Here's A Few

Plums Landed by THE FLYING MERKEL

On Memorial Day



POSTAL TELEGRAPH COMMERCIAL CABLES

CLARENCE H. MACKAY, PRESIDENT

TELEGRAM

The Postal Telegraph-Cable Company (Incorporated) transmits and delivers this message subject to the terms and conditions printed on the back of this blank.

May 30, 1910.

Received at Pottstown, Pa.

To Merkel-Light Motor Co.,
Pottstown, Pa.

Merkels make perfect score in Los Angeles to Naples endurance run, three hundred twelve miles. Two Merkels started, both finished perfect, the only ones to make a clean score. Harry elf rode, thirteen finished out of 50 starters.

Send the following message, without repeating, subject to the terms and conditions printed on the back hereof, which are hereby agreed to.

2 P RU Nite Letter.

Received at
212 High St., Pottstown, Pa.

Denver, Colo. 30, May 31 1910.

Merkel-Light Motor Co.

Merkel stock six wins the one hundred and twelve mile road race here today, miles ahead of nearest competitor. Same machine also winning two stock machine races of five miles, except on Tuilleries track this afternoon. Big seven had big race by thirty minutes but

---

Send the following message, without repeating, subject to the terms and conditions printed on the back hereof, which are hereby agreed to.

May 30, 1910.

Received at Pottstown, Pa.

To Merkel-Light Motor Co.,
Pottstown, Pa.

Won one first and two seconds in four starts at Chicago, with stock machine against special racers.

J. A. Turner.

Send the following message, without repeating, subject to the terms and conditions printed on the back hereof, which are hereby agreed to.

5 6 Nite Letter

Received at
212 High St., Pottstown, Pa.

Indianapolis, Ind. 30.

May 30, 1910.

Merkel-Light Motor Co.

Won third place in road race, time for 65 miles 1 hr. 40 min. flat, first single to finish. Rode same machine to Shelbyville and won second place in 5 mile handicap open, third place in two mile race open, first place in consolation race. Machine used in all events was a 3 1/2 H.P. '09 stock which had been run over 14,000 miles previously.

F. A. Stewart.

Send the following message, without repeating, subject to the terms and conditions printed on the back hereof, which are hereby agreed to.

May 30, 1910.

Rec'd at Pottstown, Pa.
To Merkel-Light Motor Co.,
Pottstown, Pa.

Three perfect scores. rained in torrents part of todays run.

Buffum.

New Jersey Motorcycle club run,
Newark.

"The Flying Merkel" makes the only perfect score

"The Flying Merkel" wins 112-mile road race

"The Flying Merkel" wins a first and two seconds

"The Flying Merkel" makes 65 miles in 1 hour 40 min. flat

3 perfect scores

Merkel-Light Motor Co.

POTTSTOWN, PENNSYLVANIA
MEMBERS OF M.M.A.

Kindly always mention the paper when writing to advertisers.

the idea that the circuit is returned by way of the frame or chassis. Of course, owing to the fact that these vehicles are rubber tired and thus insulated from the earth, the current never reaches the ground, but by "grounding" it in the frame work of an automobile or a motorcycle the necessity of supplying wire to carry the current both ways is disposed of.

In regard to the Eastern States which recognize licenses granted by the authorities of the State of Pennsylvania, or provide for the granting of special touring licenses, the following information has been culled by this office: Delaware—Privilege for ten days to licensed Pennsylvania riders. New York—Exempt. Ohio—Exempt if laws of home State are complied with. Indiana—Exempt if tag of home State is displayed. Illinois—Exempt if tags of resident State are displayed. Michigan—Reciprocal exemption, provided tag of home State is displayed. Connecticut—Exempt for ten days; revocable if convicted of violation of motor car law. District of Columbia—Exempt if State tag and credentials are displayed. Massachusetts—Exempt for seven days if tag of home State is shown. Missouri—Exempt for twenty days if home State tag is displayed. Vermont—Exempt for ten days if home tag is shown; after that owner must register in Vermont. North Carolina—Exempt if passing through the State. Rhode Island—Exempt for twenty days annually if home State tag is displayed.

Coil Uses Too Much Electric "Juice."

J. L. McCANCE, Oil City, Pa.—You do not state whether your coil is of the "trembler" type. Excessive consumption of current, together with inability to run slowly, could both be caused by the trembler of the coil making too long a contact. The remedy for this is to release the tension on the trembler blade by unscrewing the set screw a trifle. If, on the other hand, the machine has a plain coil with make and break ignition, your excessive consumption of current might be caused by either a mysterious hidden short circuit or, again, a faulty adjustment of the make and break points at the contact-breaker. In the latter case the engine might only run at high speeds. The remedy is to get a finer adjustment of the contacts by unscrewing the set-screw; but it is best to remember that the *slightest* turn will probably make a great difference. From what you tell us of excessive consumption of current, we are not inclined to think that it is carburetor trouble at all, but merely ignition mal-adjustment.

Looks Like Poor Timing Adjustment.

V. L. BAKER, Suffolk, Va.—We do not blame the carbureter. Your engine is "timed too early"; that is all. You do not say whether it is magneto or battery type; if the former, put the ignition timing back one tooth as an experiment, and if she is still very hard to start, make it two teeth on the pinion. Always remember to *advance* the magneto to get an easy start. The timing of a battery model, if your machine is of this type, has to be just right; only with battery ignition, you must always *retard* the spark to start. A backfire may be caused by a weak valve spring, but your symptoms do not point to this.

Fresh Air for the Dainty Adherents of Motorcycling. Who Knows the Lucky Chap in the Center?

W. B. Apple, Walkerton, Ind., a Racycle Enthusiast.

DO THOU LIKEWISE.

I HAVE taken your paper from the news stand since the fall of 1906, when it was still in its infancy. I have been disappointed many times in finding that I had reached the news stand too late to obtain a copy, and for that reason I have decided to become a regular subscriber.

Your paper and the F. A. M. have done and are doing a lot for the sport. It was largely through reading your editorials that I joined the Federation. I may also add that I used to be an open muffler fiend or, rather, a no-muffler fiend, but I am glad to say that the F. A. M. and MOTORCYCLE ILLUSTRATED have made a convert of me. I now have my machine fitted with an efficient muffler of sensible dimensions and I simply despise the fellow who runs his motorcycle as though he were operating a gatling gun.

Elmhurst, N. Y. JNO. E. W[illegible]

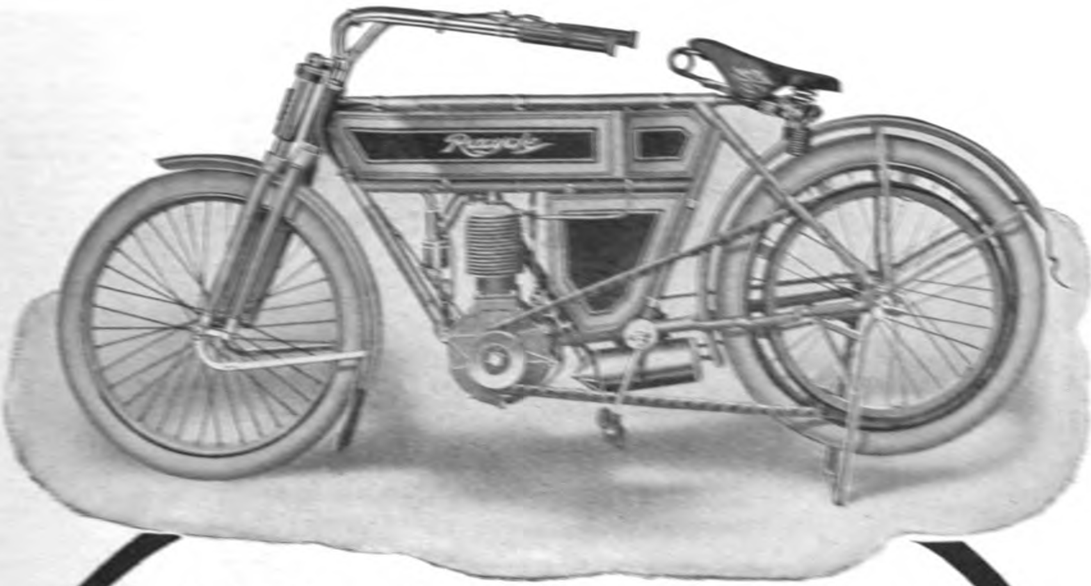
E. E. VEITH, Bishopville, S. C.—Either automatic or mechanical valves are good. Modern practice indicates a leaning towards the mechanical valve, but one cannot always be guided by popular fancy. On the whole, it is a matter of personal choice. Some like mechanically operated valves because of their positive action, interchangeability and strength, while many others adhere to the more delicate automatic valve because of its simplicity and lack of friction. There is the whole matter in a nutshell. Take your choice!

H. LINDHOLM, Stapleton, N. Y.—Your machine certainly would take a higher gear, as it has plenty of reserve power, but as you think of putting on a tandem attachment we would leave the gear as it is. These attachments can be bought at almost any motorcycle agency. Your last sentence is not very clear, as you do not state whether the air shutter is open or closed. The engine usually requires more air as it warms up.

JOHN BURSON, Rochester, Pa.—First of all, a long chain is very likely to jump the sprockets. Experimented with a long time ago, it was found to be no good. At the same time the compensating sprocket came into favor because it absorbed the motor impulse, and as these have to be of fair diameter, the countershaft stepped in for this double reason.

L. M. GAYLORD, Rockland, Wis.—The motor to which you refer in your inquiry is designed to run at an angle of 45 degrees owing to the position of the intake pipe and the oiler. It could be used in a horizontal position, however, if you have a local mechanic make a special connection for the oiler and also a special intake pipe.

THE Cincinnati Branch of the Goodyear Tire & Rubber Company, for some time located at 317 E. Fifth Street, is soon to be moved to new headquarters at 127 E. Seventh Street, along Cincinnati's automobile row.



Ask the Man Who Rides One

and he will tell you that the easiest running, nicest riding and simplest machine to handle, that he has ever been on, is the 1910 Model

Racycle Motorcycle

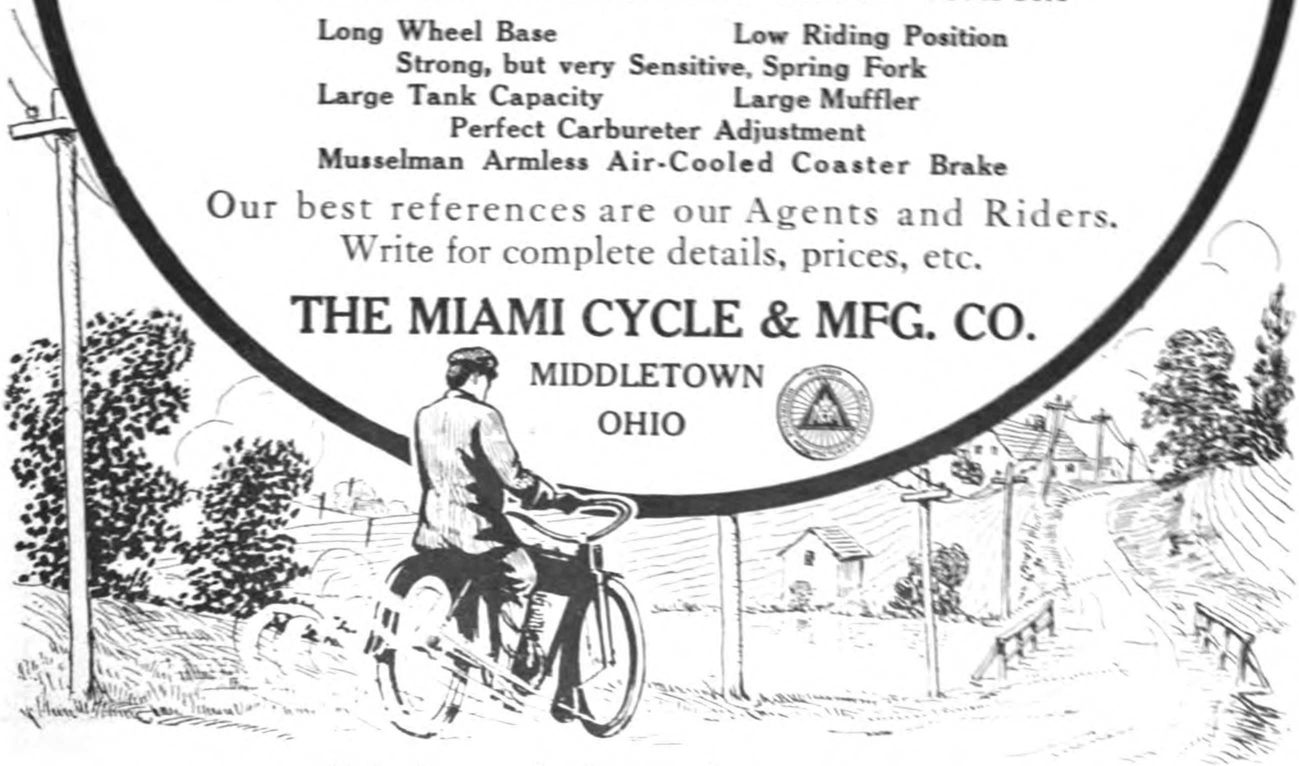
Because it is built on the right principle, on the correct lines and with the idea of making a machine that is not complicated and difficult to understand, but simple, powerful and withal a Motorcycle that

ANYONE CAN RIDE WITH PLEASURE AND COMFORT

Long Wheel Base **Low Riding Position**
Strong, but very Sensitive, Spring Fork
Large Tank Capacity **Large Muffler**
Perfect Carbureter Adjustment
Musselman Armless Air-Cooled Coaster Brake

Our best references are our Agents and Riders.
Write for complete details, prices, etc.

THE MIAMI CYCLE & MFG. CO.
MIDDLETOWN
OHIO



ROBERT BUXE has the reputation of being one of the most enthusiastic riders in the Blue Grass State. He recently acquired a Pierce 4, of which a correspondent informs us he is so jealous that he will permit no one else to ride it. That does not signify, however, that Buxe is not an all-around good fellow. The photograph was taken at Shelbyville, Ky., about thirty miles out from Louisville, near one of the fine oil roads for which that State is famous.

"Some" Busy Establishment in Milwaukee.

AS an evidence that things are humming at the Harley-Davidson factory, it is rather interesting to note the fact that this progressive and thoroughly live concern has just employed its 250th mechanic. A shop which can keep 250 men steadily at work must be turning out a pretty good bunch of machines, both in respect to quantity and the kind of material and workmanship they are putting into them. Such is the case in Milwaukee, which seems destined to become quite as famous for its motorcycles as for the amber-colored fluid of which we have all heard so much.

ANNOUNCEMENT has been made that the motorcycle section of the next Chicago Motor Show will be comprised in the second weeks' display, which is to be devoted to commercial vehicles. In extending the show time to two weeks, the Chicago folks have followed the precedent set by those in charge of the Madison Square Garden Show. The latter, however, have not yet decided whether they will permit the motorcycle manufacturers to show their machines during the first or second week.

A RACE meet is to be held at the Fair grounds in Springfield, O., on Labor Day. Hornberger and Horner are the promoters and there will be five events, with prizes valued at $100. The program, which will be announced in the course of a few weeks, will be run on a half-mile dirt track. Entry blanks may be had by addressing Henry Hornberger, care of Troupe Drug Company, Springfield, Ohio.

AN accident near Oberlin, Kans., reveals the fact that there is a woman R. F. D. carrier in that State. According to a newspaper story she is Mrs. Howard Vale. Her injuries, which were serious, though not fatal, were caused by her failure to stop at the bottom of a rather steep hill. The brake did not work because of a small casting being pulled up by the front tire and wedged in the gearing, making the brake useless.

A BLOTTING stone, a decidedly unique souvenir, has been sent out from the office of the Eclipse Machine Company of Elmira, N. Y., manufacturers of the Eclipse coaster brake and free engine device The souvenir is of convenient form for desk use and serves as well for a paper weight as for blotting purposes. The stone can be used permanently, being burned out from time to time when soaked with ink.

FROM THE N. Y. M. C. TO THE F. A. M.

"F. I Willis, President Federation of American Motorcyclists.

"Dear Sir: At the regular meeting of the New York Motorcycle Club, held this day, the following preamble and resolutions were passed: 'Whereas, On Sunday, May 22, the New York Motorcycle Club held a contest known as the Contest for the Taral Trophy and, whereas, subsequently by a vote of the club, the checking sheets were destroyed: be it therefore resolved, that the New York Motorcycle Club hereby apologizes to the Federation of American Motorcyclists for destroying the records belonging to them without authority, and respectfully requests permission to run the contest over under the original sanction. It is furthermore resolved that we deeply regret having raised any question of the ruling of the Competition Committee which divided a day into two parts Furthermore, be it resolved that we heartily endorse the present ruling of considering a day as consisting of that portion of the twenty-four hours intervening between daylight and darkness, and would respectfully state that a ruling which would make a day begin at 6 a. m. and end at 6 p. m. would meet with our hearty approval and support.

"President, ROBERT S. MORTON,
"Witness, E. M. PAGE.

"New York, June 8, 1910."

License Requirements in Three States.

JAMES IBBS, Auburn, N. Y.—No license is required for motorcyclists in New York State. In Ohio, the word "motor vehicle" does not include motorcycles. This is expressly provided for in an act of the legislature which went into effect in June, 1908. Section 15 provides that in no event shall an automobile, motorcycle or other motor vehicle be operated at a greater speed than 18 miles an hour in the business and closely built-up portions of any municipality and not more than 20 miles an hour in other portions of such municipalities.

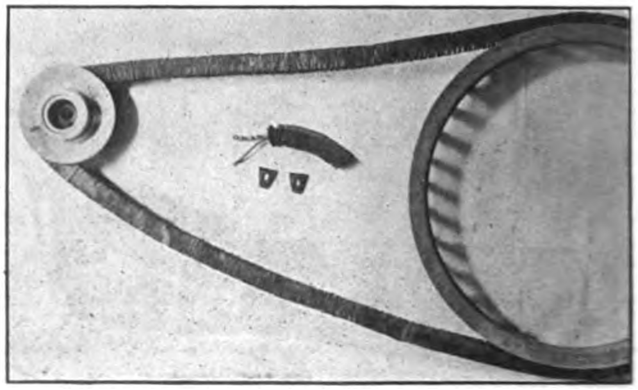
In Indiana the State registration fee is $1 for resident riders. The law requires a number not less than three inches high to be painted on the rear fender or displayed on a metal sign of some kind. The machine license is perpetual and only one payment need be made therefor. Indianapolis demands a chauffeur's municipal license, which is also perpetual, together with a city vehicle license, for which $1 is collected per annum. However, the Indiana authorities do not require tourists from other States to take out any license.

There is no State license covering motorcycles in Illinois. There is, however, a wheel tax of $3 in Chicago. A rider coming through from New York would have no difficulty in Illinois nor would he be required to pay a tax for a few days' stay in Chicago.

CHARLES H. HOSMER writes us from Carlstadt, Alberta, Can., to this effect: "Nice country this for the two wheeler, though the spring frame is needed in its highest state of development. The gumbo trails certainly give the jolt. I recently saw a 7 Thor which had come through from Washington State. It was fitted with a sidecar and brought two land-seekers.

Leather-Chain Transmission.

A NEW V belt, known as the Stoddard-Foster leather chain belt, has been placed on the market by Stoddard & Reed, 2015 Main Street, Jacksonville, Fla. It is made to fit the standard 28 degree pulley and consists of a 3-16-inch block chain, over which are packed V-shaped leather washers about 1-16-in. in thickness. These washers are tapered at the lower edges to permit them to readily adapt themselves to the pulley without cramping. On the lower side of the chain is placed a rawhide strip to prevent the chain from cutting into the washers. The belt is made in widths from ¾ to 1⅛ inches and in lengths of 8½ feet. It is claimed that by reason of its construction the belt can be run slack without slipping, so that the ordinary strain and wear caused by great tension are done away with. The combination of chain and pulley is said also to lend a degree of strength and flexibility quite in excess of all ordinary requirements. The belt is guaranteed for six months.



AN UNSOLICITED TESTIMONIAL

AS TO THE VALUE OF

G & J TIRES

On May 18th and 19th **Mr. Perrin B. Whitney,** manager of the **"Indian" Branch in Chicago,** accompanied by Messrs. **Fred Huyck** and **Harry W. Miller** made the Chicago-Indianapolis round trip.

Mr. Whitney writes under date of May 26th, 1910:

"As almost the entire trip was over muddy and very bad roads, we had all kinds of chances for skidding, etc. By using the Bailey G & J Tire we found it possible to ride these roads even when they were very slippery with very satisfactory results. We encountered several thunder showers and for two days were in an almost continual rain from the time we started until night.

"The 1910 G & J Tires are the most satisfactory tires ever constructed. We have had absolutely no replacements to make so far this year either in casings or tubes, which is certainly a very satisfactory record from every point of view."

G & J TIRE Co.

INDIANAPOLIS, INDIANA

MAKERS AND SELLERS

More R-S Machines in Commercial Use.

THE Reading Standard Company has just closed a deal with C. J. Church & Son, Saratoga Springs, N. Y., to furnish a 6 R-S twin for the Police Department at Saratoga Springs. In addition to the above, the Brooklyn Electric Company, of Brooklyn, N. Y., has just received a repairman's emergency wagonette, which is used in case of short circuits and wire trouble throughout Brooklyn, Coney Island and the Gravesend District. The wagonette portion of the machine is made with a platform with sides in order to hold a bag of tools, wire, lamps and a small step-ladder, when necessary. The same company advises us that the Regal Shoe Company, of New York City, has a special delivery van which has been in operation three months, and is still giving complete satisfaction, with only one adjustment, that of a compensating sprocket, in 3,500 miles over New York streets, at an average of fifty miles a day, a larger portion of which was made in Brooklyn over cobble stones.

AN interesting feature in connection with the Tourists' Trophy Race, an account of which will be found elsewhere in this paper, is the fact that three consecutive winners in 1908, 1909 and this year rode machines equipped with Shamrock Gloria belts. In this year's race the Collier brothers, who were first and second, and also the third, fourth, sixth and tenth place winners, were mounted on motorcycles which were thus equipped. The Shamrock Gloria belt was also used by H. H. Bowen, who made the fastest lap, and by W. H. Bachall, who established the first lap record, and who would have undoubtedly proven a strong contender for first honors, had it not been for an accident caused by the spilling of some gasoline over a red hot engine, resulting in the practical destruction of his machine. The N. S. U. Motor Company, 206 W. 76th Street, New York City, who are the United States distributors for the Shamrock Gloria belt, are elated over the result of the big race on the other side, claiming that it demonstrates the great reliability of this form of transmission, which gives a smooth drive and requires no attention on the part of the rider.

AN increase of $500,000, from $1,500,000 to $2,000,000, has been made in the capital stock of the Pennsylvania Rubber Co. of Jeannette, Pa. The presidency of this concern has been assumed by Herbert Du Puy, chief executive of the Crucible Steel Company. C. M. DuPuy, former sales manager, has been made vice-president, and S. G. Lewis general manager. H. W. DuPuy is treasurer.

All About the 1910 Thor Machines.

ENTITLED "The Symbol of Mechanical Perfection," the 1910 catalogue of the Aurora Automatic Machinery Company of Chicago, makers of the Thor machine, is chock-full of the sort of information and pictures certain to make a good impression both upon the novice and the experienced rider. The Thor 4 is featured in an interesting way, not too technically but at the same time completely and effectively described and illustrated. Space is given to several notable Thor performances on hill, road and track, and there is also a very attractive story captioned "Motorcycling for Medical Men," written by Dr. F. C. Dolder, of St. Charles, Minn. Application of the Thor to R. F. D. service and other practical uses is also elaborated upon, while the last three pages of the booklet are devoted to the advantages of the Thor sidecar. A copy may be had by applying to the Aurora Automatic Machinery Company, Thor Building, Chicago.

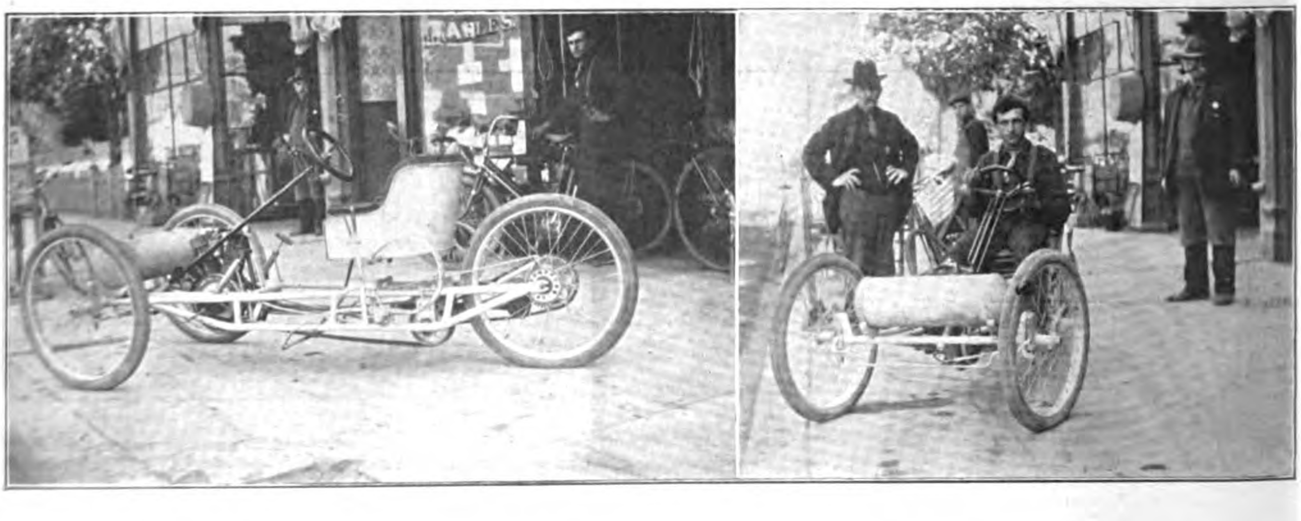
MOTORCYCLE tires are about to be produced by the Royal Rubber Company of Akron, O. O. C. Alling, of New York, is president; J. H. Baird, also of New York, vice-president and superintendent; T. O. Evans, of Akron, secretary, and J. C. Gibson, who has been associated with Morgan & Wright and the B. F. Goodrich Company, treasurer and general manager.

J. S. TORMEY, the Excelsior sales representative on the Pacific Coast, is making a trip through the Northwest, including Montana, Idaho and Oregon. He has thoroughly covered California during the past two or three months, and advises this office that the enthusiasm in that State is quite remarkable and growing all the time.

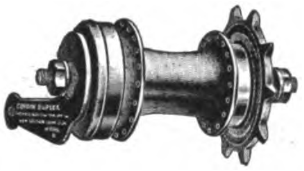
P. I. HAYNES, of Columbus, O., agent for the Harley-Davidson, recently made a trip to Chicago, Milwaukee and return, a distance of 944 miles, in forty-eight hours' running time. Haynes was accompanied by U. S. Woodrow. He reports that he had no trouble of any kind, not even a puncture.

F. B. GRIMSHAW, Julia M. Grimshaw, Margaret Ware, H. P. Walters and A. L. Walters are the incorporators of the Motorcycle Hanger Company of Los Angeles. The concern is capitalized at $25,000.

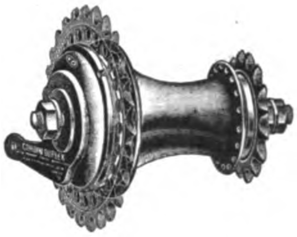
J. S. TORMEY, the Excelsior representative in California and other Pacific Coast States, sent us the photograph reproduced below. The outfit was built by A. C. Banta, of San Jose, Cal. The machine was originally made for a cripple and it is quite unique in construction. The engine is a 1908 5-h. twin with tricar, front steering arrangement, springs, etc. The control is by levers through a steering wheel operating both spark and throttle. The transmission is especially worthy of attention in that it is partly belt and partly chain. A long belt is run from the engine to a countershaft, from which a chain transmits the power to the back wheel. The clutch is nothing more nor less than an idler which presses on the belt. When the lever on the side is released it pushes on the band brake at the same time. The same rule applies in starting, the lever engaging the idler and slacking the brake.



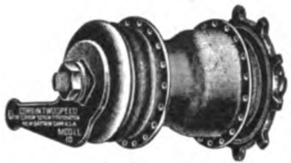
SECURITY ON A MOTORCYCLE
IS ASSURED WHEN A
CORBIN BAND BRAKE
Is Part of Your Machine's Equipment



MODEL 8.



MODEL 9.



MODEL 10.

For Either Belt or Chain Driven Machines

The Success of the CORBIN BRAKE Has Been Demonstrated to the Satisfaction of Thousands

AGENTS AND RIDERS: Handle and Use a Brake Whose Efficiency is Universally Acknowledged. Quotations on Request.

The Corbin Screw Corporation

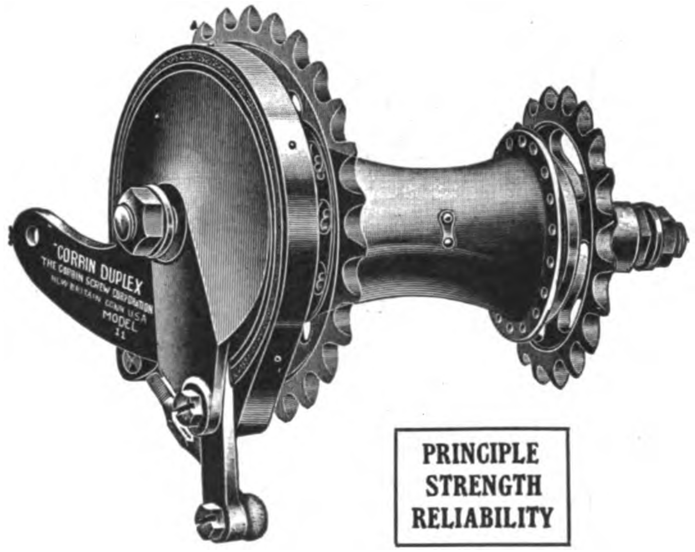
LICENSED COASTER BRAKE MANUFACTURERS

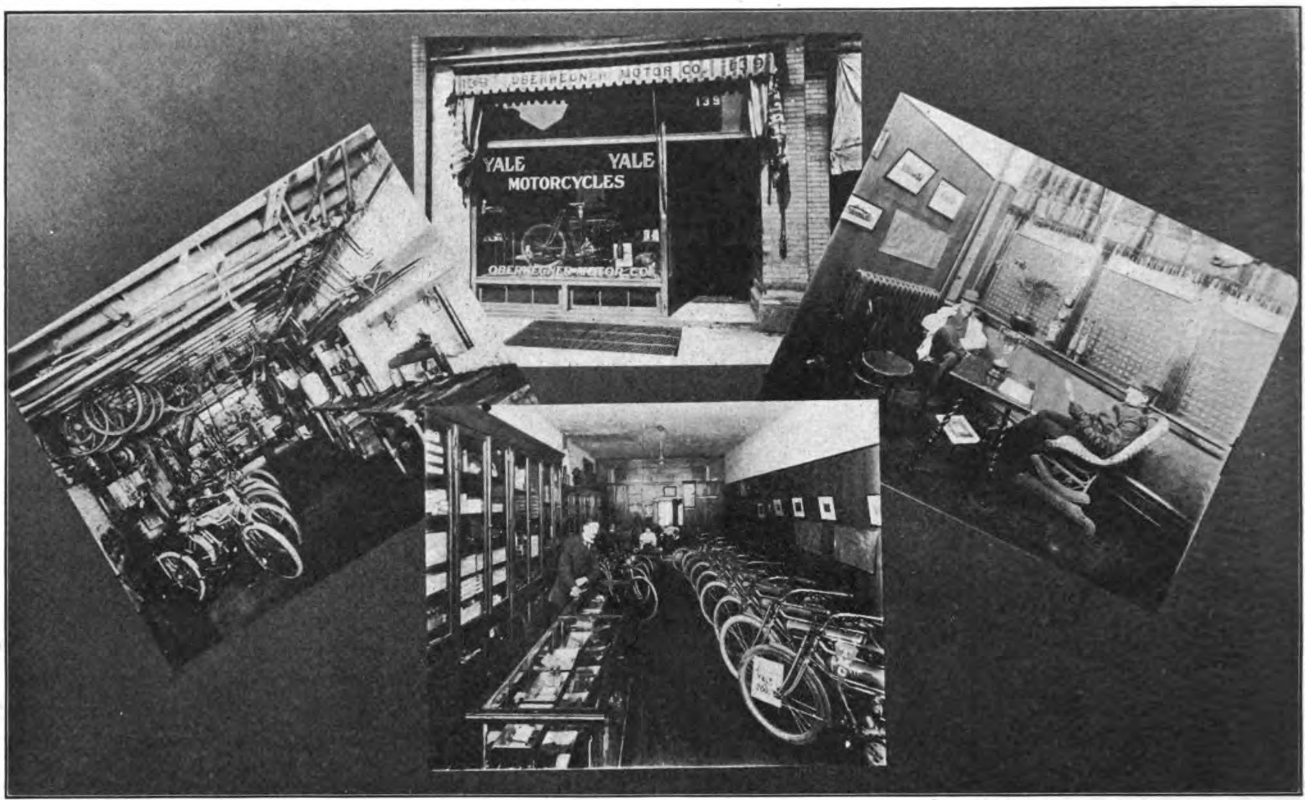
NEW BRITAIN, CONN., U. S. A.

**THE CORBIN SCREW CORPORATION OF
CHICAGO, 107-109 Lake Street, Chicago, Ill.**

WAREHOUSES:

**106, 108, 110 Lafayette Street, - New York
Northwest Cor. 8th and Arch Sts., Philadelphia, Pa.**


CORBIN DUPLEX
THE CORBIN SCREW CORPORATION
NEW BRITAIN CONN USA
MODEL
PRINCIPLE
STRENGTH
RELIABILITY



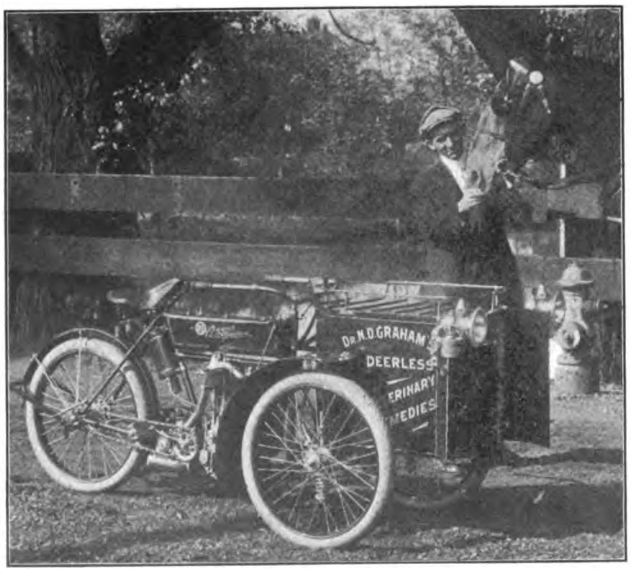
THE FINE HEADQUARTERS OF A LIVE MIDDLE-WESTERN FIRM.

It would not be an easy matter to find a neater or more progressive-looking establishment than that of the Oberwegner Motor Co., 139 Michigan avenue, Toledo, Ohio. The group of pictures reproduced above shows four views, viz.: the store front, its interior, the smoking room and repair shop. The Oberwegner folks are manufacturers of O-M-C products, including a motorcycle stand, band brake and extension. They carry a full line of supplies and employ several skilled repair men.

Veterinary Uses R-S Wagonette.

Dr. N. D. Graham, veterinary surgeon, Glencove, Long Island, N. Y., is the user of the R-S wagonette illustrated below, especially constructed and fully equipped, including lamps, speedometer, specially heavy construction on box, magneto ignition, etc. Dr. Graham is using this machine to attend to his veterinary work in various towns in Long Island. He makes a specialty of horse medicines and carries a stock of them in the van, as well as sufficient clothing for a three or four days' trip.

C. W. Bradshaw has taken the Aurora, Ill., agency for the Yale.



Dr. Graham and His R-S Wagonette.

Ready to Deliver Two-Speed Attachments.

Announcement is made by the N. S. U. Company, 206 West 76th street, New York City, that it is now in a position to make immediate deliveries of the N. S. U. two-speed gear, ready to be attached to either the Merkel, R.-S., M. M., Curtiss, Marvel and, of course, the N. S. U. machine. The N. S. U. two-speed has demonstrated its efficiency under any and all conditions and besides, it can be easily applied to any of the machines above mentioned. Complete particulars concerning its method of operation and the advantages which are part of the device, may be had upon application to the N. S. U. Motor Co.

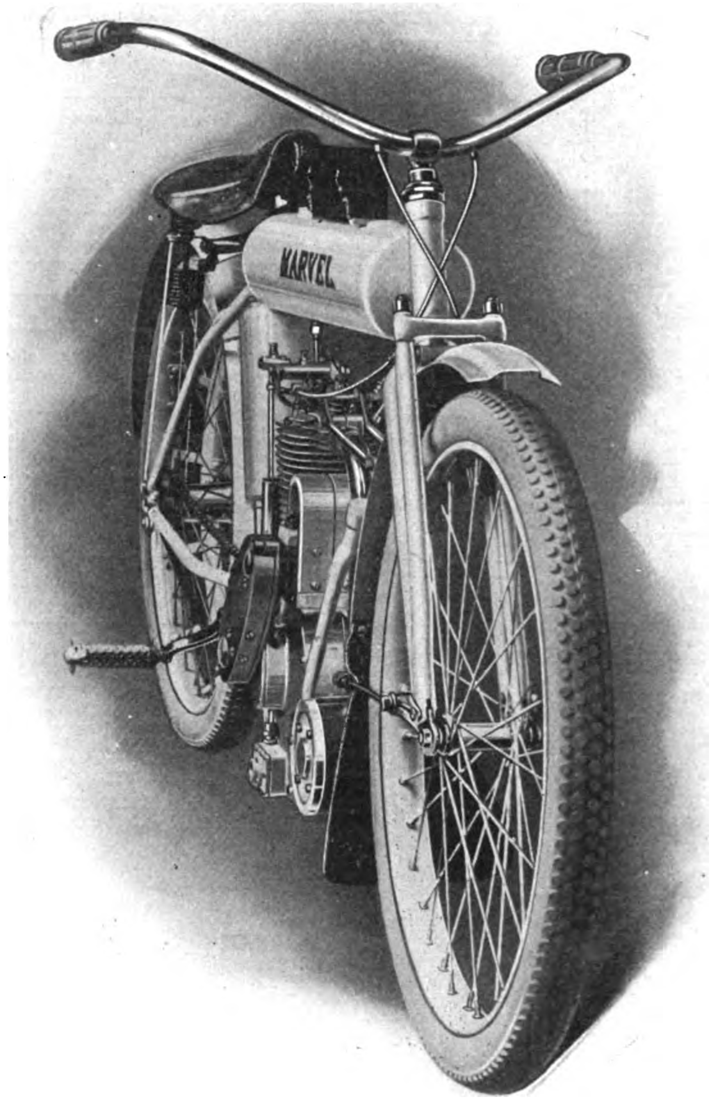
Ordered Five Carloads of Racycles.

Another proof of the tremendous demand for motorcycles on the Pacific Coast is furnished in the order recently filed with the Miami Cycle & Manufacturing Co., of Middletown, O., by that concern's Pacific Coast agent, Frank M. Jones. Jones has ordered five carloads of Racycles, all of which will be shipped to his Los Angeles branch. This is probably the greatest single shipment of motorcycles ever made, and it demonstrates at least two things, that the Miami product is popular and also that business is booming in California.

F. B. Widmayer & Co., 2312 Broadway, New York City, have quite a novelty in the shape of a small acetylene self-lighting lamp. It is called the Duoplex and sells for $5 complete. The gas is formed by action of water on the calcium carbide, which is sold in two pound cans at a very low price. The gas is generated by turning on the water, which trickles down through the screen, thus coming in contact with the carbide. The gas thus created rises through a hole in the center of the gas chamber and thence through a little duct to the tip.

A veritable motor encyclopaedia is the catalogue of automobile accessories just issued by the Motor Car Equipment Company, 55 Warren Street, New York City. This book will be mailed to any dealer upon request, but will not be sent to consumers. Those in the trade desiring a copy should write on their business stationery or enclose one of their business cards.

G. H. Snyder has taken on the Pierce Agency for South Bend, Ind.



MARVEL MOTORCYCLE

WITH

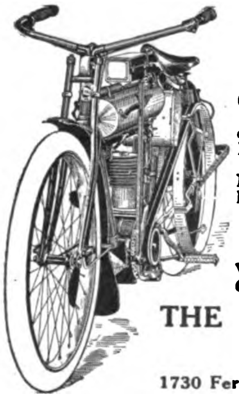
CURTISS 5 H. P.
Overhead Valve
and Offset Crank
MOTOR

AT

$225.00

is the best bargain ever produced

Marvel Motorcycle Co.
Hammondsport, N. Y.



YALE MOTORCYCLES

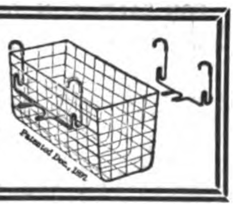
Hold world's record for endurance. Operated at lowest upkeep cost of any. Ran 132 hours without fan or other cooling device and DID NOT OVERHEAT.

LONG STROKE MOTOR; SILENT MUFFLER; COMFORTABLE TO RIDE; EASY TO OPERATE

RIDE A YALE—THEY NEVER FAIL

1910 Models are being delivered. Write to-day for agency proposition. Get our booklet, "What is Reliability?"

THE CONSOLIDATED MANUFACTURING CO.
1730 Fernwood Avenue, TOLEDO, OHIO



Dowe's Bicycle Luggage Carriers

Best Thing for the purpose ever put on the market. In use all over the United States. ¶ Can put on or detach instantly with adjustable hook. ¶ Good sellers because the riders all want them and the price is popular. Write for Prices.

DOWE WIRE & IRON WORKS
Louisville, - - Kentucky

TWO BATTERY COIL!

With or Without Plug Switch. Single and Double Cylinder Types.

The most reliable and durable coil yet. Can be put in battery case with two batteries and will run you 1,000 to 1,500 miles. Write for particulars now.

MADE BY CENTRAL INSULATING COMPANY, Lafayette, Ind.

MOTORCYCLE MART

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word; two or more times, three cents per word each insertion. No advertisement for less than fifty cents.

MORE "PROOF OF THE PUDDING."

YOUR motor mart sold my M. M. after two other expensive columns had drawn blank.

No. Woodstock, Me. C. B. SHIFFER.

FOR SALE OR EXCHANGE

FOR SALE—EXCELSIOR, new last fall, in perfect condition; reason, getting twin. Price, $115. R. C. Smith, Burt, Iowa.

WANTED—Tricar to fit M. M. motorcycle; must be in good condition. J. A. Barrows, P. O. Box 305, Schenectady, N. Y.

FOR SALE—One Indian Tri-cycle attachment for diamond frame; guaranteed in first-class shape. Lewis B. Thompson, Defiance, Ohio.

EXCHANGE OR FOR SALE—Gasoline engine, 5 h. p., in first-class running order; will trade for good motorcycle. Chas. Zillig, 2549 W. McMicken avenue, Cincinnati, O.

FOR SALE—1910 Merkel twin with all extras. Arthur Gensch, 11 Myrtle avenue, Newark, N. J.

FOR SALE—1909 5 h. p. twin chain drive Indian; overhauled and in perfect condition; good reason. Price, $175. "Clark," care of Holden, 141 Massachusetts avenue, Boston, Mass.

FOR SALE—One twin-cylinder Indian, chain drive; also one single-cylinder Indian, belt drive; both in good condition. Good reasons for selling. L. A. Groves, Davison, Mich.

WANTED—Good 1909 or 1910 motorcycle; chain or shaft drive preferred; must be reasonable for cash; state full particulars. Address R., care of MOTORCYCLE ILLUSTRATED.

FOR SALE—M. M. 7 h. p. twin; a bargain at $150; first-class condition; 1909 model. Address Will Curley, Kokomo, Ind.

FOR SALE—1908 Indian, perfect condition, extras; $68. Box 635, Lincolnton, N. C.

FOR SALE—2¼ 1908 Indian, 2½ rear, 2¼ front. G & J tires; nearly new; perfect running condition. First $85 takes it. G. E. Kurk, 806 E street, Lawton, Okla.

FOR SALE—Brand new M. M. 1910 magneto "4." Cost $225; sell for best offer. Box 94, Danbury, Conn.

FOR SALE—1909 Curtiss twin 6 h. p.; spring forks; number accessories, sidecar; splendid condition. Cost complete $350; sell $190. Ernest Henk, Victor avenue, Trenton, N. J.

FOR SALE—1909 7 h. p. M. M. twin; flat belt, free engine, lamp, Prest-O-Lite tank, speedometer, new tires; all in fine condition. A bargain if sold at once. H. G. Steinbaugh, Upper Sandusky, O.

FOR SALE—F. N. four-cylinder motorcycle, 1909 model, just overhauled; lamp, speedometer, etc. Cost $350; will sacrifice for $200. A bargain. G. Harraver, William street, Worcester, Mass.

FOR SALE—One 1909 3½ h. p. Excelsior, in first-class condition; lamp, pump, repair kit and good outfit of tools. A bargain at $175. George Leary, P. O. Box 64, Snyder, Colo.

FOR SALE—1909 5 h. p. Indian twin, all in good condition; with speedometer, 20th Century lamp and generator, luggage carrier, horn, tourist's tool bag, rough rider grips and complete set of tools. Reason for selling, taken on Thor agency for 1910. Cost complete over $300, but will sacrifice for $175. If interested inquire of Ray W. Pellett, Danielson, Conn.

FOR SALE—A 1910 N. S. U. 3½ h. p., with magneto; excellent condition; speedy. A bargain for $130; cost $200. Buying auto. William Stiep, 137 Railroad avenue, Jersey City, N. J.

FORCED TO SELL BECAUSE OF ILLNESS.—Late 1909 5 h. twin cylinder loop frame chain drive Indian motorcycle, in perfect condition with complete accessory equipment. $200. Address Motorcycle, 31 Brook street, Brookline, Mass.

FOR SALE—New Excelsior tandem attachment, with Cavalry saddle No. [illegible], $15. H. J. Mann, 49 Wall street, New York. Telephone 6744 Hanover.

WANTED—B. & C. two-speed gear for 1909 Indian. Must be in perfect order. How much? Write. Deracke, 127 McDougal street, New York.

FOR SALE—Harley-Davidson motorcycle, almost new and guaranteed as good. Has never failed to run or cost a cent for repairs. Reason for selling—have bought automobile; in absolutely as perfect condition as when it left factory. Price, $160. Write for particulars. Dr. Howard H. Hopkins, Monrovia, Frederick Co., Maryland.

FOR SALE—R.-S., 6 h. p. twin, in first-class condition. J. Grossman, J., 328 South Tenth street, Reading, Pa.

FOR SALE—1909 model, M. M. battey special motorcycle, 3½ h. p.; flat belt drive, 2½-inch tires in good condition; little used and good as new. Cost $200, will sell for $100. Address E. C. Flegle, Arlington, Ky.

FOR SALE—F. N. four-cylinder motorcycle; 1908 model; been ridden but little over 1,000 miles; in good condition; cost $350; will sell for $185; a bargain. Address "Bargain," care MOTORCYCLE ILLUSTRATED.

AGENTS CARDS, ETC.

F. N. OWNERS ATTENTION!—We have for sale a considerable quantity of F. N. parts. If interested, write for particulars. Tiger Cycle Works Co., 782 Eighth avenue, New York.

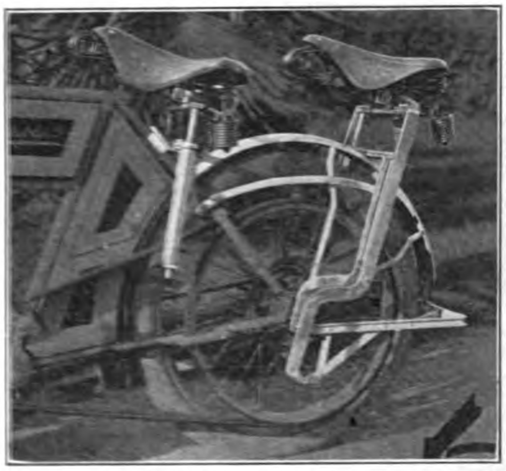
WANTED—Second-hand motor cycles, Indians, Marsh Metz, Merkel-Light and Excelsior. E. J. Willis Co., 8 Park place, New York.

MOTORCYCLES thoroughly overhauled and repaired; agents for Thor and Excelsior motorcycles; supplies and sundries. Brazenor & Ruderman, 1041 Bedford avenue, Brooklyn, N. Y.

SECOND-HAND M. M. BARGAINS—Exhaust Whistles, Hand Idlers. M. M. Branch, 895 Main street, Buffalo, N. Y.

SECOND HAND BARGAINS.—Any make of motorcycle; all machines in good condition. Parris, 2208 N. Broad street, Philadelphia, Pa.

BARGAINS in accessories. Always on top. We have the largest stock and lowest prices in America. Write today for catalogue. Motorcycle Equipment Co., Hammondsport, N. Y.



PERFECTION Shock Absorber and Shock-Absorbing Tandem

Mode 2

Patented May 13-'10

LIKE CUT

PERFECTION SHOCK ABSORBER. Price $10.00.

Absorbs all the jolt and jar. Is far superior to a spring frame. Built to fit any make of Motorcycle. Will increase the mileage on rear tire 50%. Will keep all dents out of the rim.

PERFECTION SHOCK ABSORBING TANDEMS.
Price, with Saddle, $20.00; Less Saddle, $15.00.

Are constructed so as to permit the rider's feet to move with the saddle, the foot rests being 3 ins. in front of center of saddle to conform with natural riding position. The long springs (10 in.) permit of 3 ins. of vertical resiliency (up and down motion). No side or end sway so common with all other tandems.

PERFECTION SHOCK ABSORBERS AND TANDEMS

Are built for comfort, are tested and approved by all of the best riders in every State. They save the rider and machine. Nickel-plated and highly polished, an ornament to the Motorcycle. Recommended by all doctors; no more backaches caused by continuous jolting. When ordering state Make and Model of Motorcycle. Dealers and Manufacturers write for Trade Prices. Order from your dealer, or expressed on receipt of price by

PERFECTION MFG. CO., - 82N Fair Oaks Avenue, PASADENA, CALIFORNIA.

Bargains Extraordinary
in
MOTORCYCLE TIRES

With prices of motorcycle tires increasing generally, we, by reason of an advantageous purchase, can offer attractive prices (while they last), and immediate delivery on the following:

2000 1908 G & J double clinch, raised tread

These tires are not "seconds"

1909 M & W moulded double clinch

DEALERS WRITE FOR PRICES

Our line of supplies is absolutely complete. They are listed in our handsomely illustrated 1910 Catalogue. Send for one—yours for the asking.

F. A. BAKER & CO., 10 Warren Street, **New York City**

GOODRICH MOTOR CYCLE TIRE
28 X 2½
THE B. F. GOODRICH CO AKRON

The Goodrich "Roadster"

The White Tire For 1910

Popular in Price

Furnished in
Size 28" x 2¾" which
Fits 2½" Rim

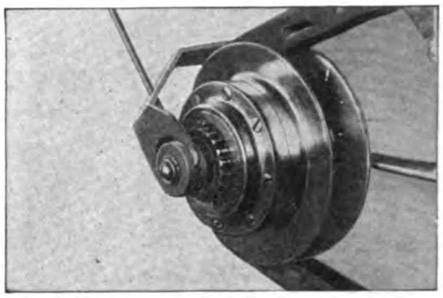
The
B. F. Goodrich Company
Akron, Ohio

Price List now ready

PROOFS OF THE SUCCESS OF

ECLIPSE FREE ENGINE PULLEYS

Are being furnished every day in all parts of the country



ECLIPSE FREE ENGINE

We are now prepared to furnish Free Engine Pulleys to fit the following machines:

MERKEL EMBLEM
CURTISS EXCELSIOR
YALE GREYHOUND
ROYAL PIONEER

SAMPLE LETTER OF A SATISFIED USER:

Newark, N. J., May 23, 1910.

"Eclipse Machine Co., Elmira, N. Y.

"Gentlemen: As to the working of the Eclipse Free Engine Pulley, I am pleased to say it is most satisfactory. I started my machine from a dead stop without pushing or pedaling at all, simply by pulling the clutch in gradually. I was also able to climb 'Cushmall Hill,' which is the test hill for Jersey motorcyclists, and then had the theretofore unknown pleasure of coasting down again as silently and much more rapidly than on a bicycle. Yours very truly, "ARTHUR GENSCH."

ECLIPSE MACHINE CO., ELMIRA, N. Y.

Licensed Coaster Brake Manufacturers

1910 PITTSFIELD 1910

SPARK COILS, SPARK PLUGS, SWITCHES, TIMERS AND DISTRIBUTERS AND MAGNETOS

MADE IN AMERICA *HAVE NO SUPERIOR IN THE MARKET*

Magneto Spark Plug

The following testimonial was recently received by the Pittsfield Spark Coil Co., unsolicited.

"Columbus, Ohio, Oct. 11th, 1909.

"PITTSFIELD SPARK COIL CO.,
"Dalton, Mass.

"Gentlemen:—

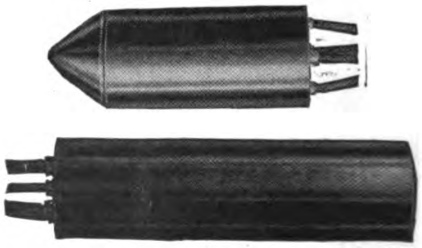
"I think you will be interested to know I am using the best coil "PITTSFIELD," on my run from San Francisco to New Orleans and New York.

"I have covered 5,763 miles, 2,022 on railroad cross ties, and have had a terrible trip. Have been out thirty-seven days and had no ignition trouble. Your coil has stood unreasonable endurance, exposed to water, heat and cold in many States.

"I am an old-time rider and one who knows a good thing.

"Yours truly.
(Signed) "H. F. MERIWEATHER."

A Line of Pittsfield Goods is carried by H. V. Greenwood, 166 Lake Street, Chicago



Write today for particulars, catalogues, price lists and instructions.

PITTSFIELD SPARK COIL CO., Flansbury Ave., Dalton, Mass.

Sales Representatives: **New England**, W. J. Connell, 36 Columbus Avenue, Boston. **Atlantic States**, Thomas J. Wetzel, 17 West 42nd Street, New York. **Central States**, K. Franklin Peterson, H. V. Greenwood, 166 Lake Street, Chicago **Michigan**, L. D. Bolton, 319 Hammond Building, Detroit. **Pacific Coast**, The Laugenour Co., San Francisco.

English Tourist Trophy Race
A Bosch Equipped Triumph

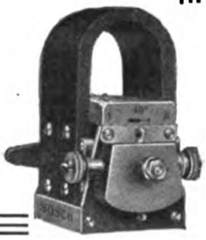
In the great English Tourist Trophy Race held on the Isle of Man, May 26th, there were 83 motorcycle entries. The course with its ten circuits was 158 miles and 220 yards. A race to bring out endurance, staying power and efficiency of every motorcycle and its equipment. Here are the results:

Twenty-six Machines Finished
Twenty-two of these were Equipped
WITH BOSCH MAGNETOS
The First Fifteen Were Bosch Equipped

It's wise to specify "Bosch Magneto" when you buy

BOSCH MAGNETO COMPANY

223-225 West 46th Street, New York
CHICAGO BRANCH: 1253 Michigan Ave. **DETROIT BRANCH, 870 Woodward Ave.**
SAN FRANCISCO BRANCH: 357 Van Ness Ave.

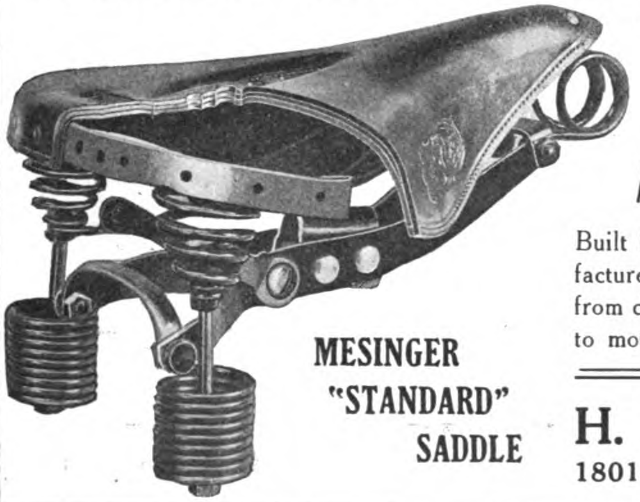


When you strike rough road you feel the difference. Ask any rider the facts about

MESINGER

"CAVALRY" and "STANDARD" MOTORCYCLE SADDLES

MESINGER "CAVALRY" SADDLE



MESINGER "STANDARD" SADDLE

Ask What The Patented Shock Absorbers Do

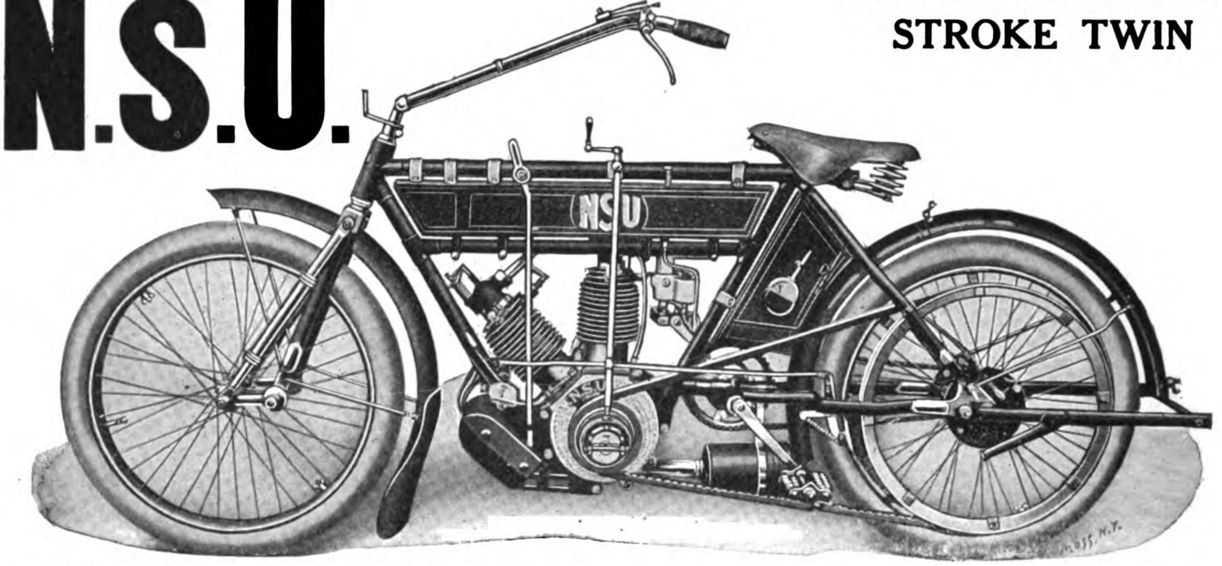
Built for COMFORT, tested and approved by many manufacturers of motorcycles. They save the rider and machine from disagreeable jolts, prevent side-sway and add pleasure to motorcycling.

H. F. MESINGER MFG. CO.
1801-1807 First Avenue, - NEW YORK

THE TWO SPEED

N.S.U.

THE FAMOUS LONG STROKE TWIN



THIS N. S. U., like our other models, is built of the highest grade materials obtainable. It is a combination of strength, reliability and flexibility such as cannot be found in any other motorcycle—it makes the N. S. U. a machine to be depended upon indefinitely. The power and speed of this model is such as to leave the higher rated twins considerably to the rear whether on the hill, level or track. Why not select a motorcycle which satisfies indefinitely, not only for one year. The Art Catalog "M" tells you the latest wrinkles of the motorcycle world.

N. S. U. MOTOR CO. Members M. M. A. **206 West 76th St., New York City**

Quality Tells in the Long Run and the Longer the Run the More it Tells

This is the way the Quality of

MORGAN & WRIGHT MOTORCYCLE TIRES

told in the 226 mile Tyrrel Trophy Run from New York to Hudson and return May 21st. Time—12 1-2 hours.

18 Riders started, most of them riding big 6 and 7 H. P. Machines.

12 out of the 18 machines were equipped with Morgan & Wright Tires.

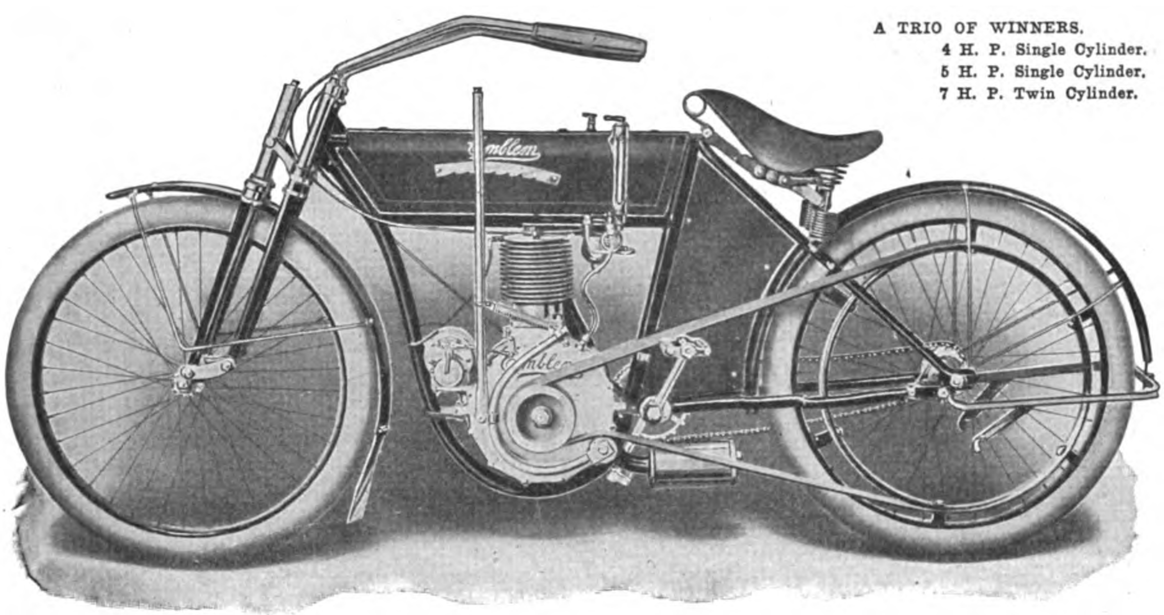
Out of the 14 perfect scores, 10 were made on Morgan & Wright Tires.

Harry Mapp, who won the Diamond Medal, rode Morgan & Wright Tires.

MORGAN & WRIGHT - - DETROIT

Class, Power, Speed and Satisfaction are the Appealing Features of the

1910 EMBLEM MOTORCYCLES



A TRIO OF WINNERS.
4 H. P. Single Cylinder.
5 H. P. Single Cylinder.
7 H. P. Twin Cylinder.

EMBLEM MANUFACTURING CO., Angola (Erie Co.), N. Y.

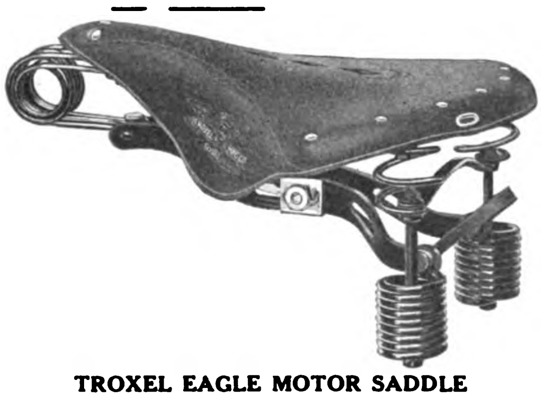
ALSO MANUFACTURERS OF THE EMBLEM BICYCLE.

DISTRIBUTORS.

John T. Bill & Co., Los Angeles, for California
F. M. Spinning, Seattle, for Washington,
Meredith Cycle Co., Salt Lake City, for Utah.
Ballou & Wright, Portland, for Oregon.
Alexander-Sewald Co., Atlanta, Ga., for the South
Henry Keidel & Co., Balt., Md., for Va. & W. Va.

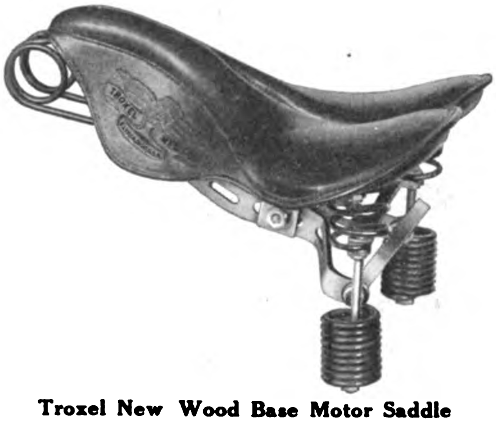
TROXEL MOTOR SADDLES

The Saddles of Fame. It is Surely Quality That Makes These Saddles Famous. Why Not Be the Proud Owner of One?



TROXEL EAGLE MOTOR SADDLE
Length, 13¼ inches Width, 12 inches

No Roads
Too Rough
No Trips
Too Long
For the comfort of the
Rider when
using a
TROXEL



Troxel New Wood Base Motor Saddle
Length, 14½ inches Width, 12½ inches

We are saddle specialists, and with our years and years of experience there can be but one result "SATISFACTION." Our motto is "ALWAYS THE BEST." *Write for Catalog to*

THE TROXEL MFG. CO. Elyria, Ohio, U. S. A.

ALL YOUR

BELT TROUBLES WILL STOP

When you invest in the only belts that cannot, of themselves, MAKE trouble for you. THERE ARE SUCH BELTS. They are made of leather (specially tanned for the purpose), reinforced with waterproof cement and rivets, designed to give great strength and long wear and are known as the

"SHOEMAKER" MOTORCYCLE BELTS

("V" SHAPE OR FLAT)

Their exclusive trouble-stopping features are: They do not slip, wet or dry. Are not affected by water, oil, grease or climate. Require no dressing or attention. Wear more MILES than belts made of any other materials. And prices are right.

May we send you a descriptive booklet and price list?

APEX BELTING CO., 240 CHESTNUT ST.
PHILADELPHIA

DEALERS: SEND FOR NEW DISCOUNT OFFER

STRONG : RESILIENT : WEAR RESISTING

Diamond

MOTORCYCLE TIRES

Diamond
Motor Cycle

Extreme toughness and flexibility offer not only strength, but the greatest resistance to abrasions of daily service and the possibility of blowouts.

Give the motorcyclist the qualities chiefly wanted—long life—large mileage—low upkeep cost, and to a degree not equaled by any other tire.

THE DIAMOND RUBBER CO.
AKRON, OHIO

Motorcycle Cases at Half Price

There are 4,000 in this lot, the largest purchase ever made of Motorcycle Cases. We cleaned out the stock of the M. & W. factory when they changed the style of lettering on their moulds for 1910. They are stamped "Second" in small letters near the bead, and while not guaranteed, every one is practically perfect.

SINGLE CLINCH—MOULDED TYPE

Priced Each Size	Regular Weight Basket Weave	"Tourist" Heavy Basket Weave	"Bailey" Tread
26x2¼	$5.00	$5.50	$5.50
26x2½	5.25	....	....
28x2	5.00	5.50	....
28x2¼	5.25	5.75	5.75
28x2½	5.50	6.00	6.00

DOUBLE CLINCH—MOULDED TYPE

Priced Each Size	Corrugated or Basket Weave	"Tourist" Heavy Basket Weave	"Bailey" Tread
26x2¼	$5.25	$5.75	$5.75
26x2½	5.50	6.00	6.00
28x2	5.25	5.75	....
28x2¼	5.50	6.00	6.00
28x2½	5.75	6.25	6.25

THE MONEY YOURS, THE GOODS OURS UNTIL YOU'RE SATISFIED

Select the style and size you want, send our low purchase price any way you like with the distinct understanding that you are free to examine them thoroughly upon receipt, and return them at our expense if they do not in every way come up to your expectations.

You save half the regular price on these new practically perfect casings and take no risk, as the amount paid will be cheerfully refunded if upon receipt you don't agree with us that they are the best value you ever saw.

LET US SEND OUR 1910 MOTORCYCLE and BICYCLE SUPPLY CATALOGUE

New York Sporting Goods Company

15 and 17 Warren Street (near Broadway), New York, N. Y.

The Best and Cheapest Light for Motorcycles

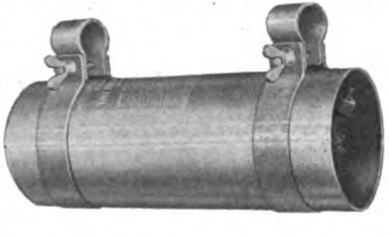
You probably know that the Prest-O-Lite Gas Tank is the standard equipment for automobiles.

Why? Simply because it has proven more dependable, more efficient, and more economical than any other lighting system.

It has precisely the same claims on the motorcyclist. Its first cost ($10) is not alarming, when you remember that a Prest-O-Lite tank never gets to be second-hand. It is always in demand—always saleable for about what you put into it.

PREST-O-LITE Gas Tank

Floods the road far ahead with a strong, steady light, turned on and off like a gas jet. Each tank gives over 80 hours of light (using a ⅛-ft. burner). A full tank, in exchange for an empty, costs only 60c.



Prest-O-Lite is the best and cheapest accident insurance you can carry. Feeble, uncertain lamps expose the rider to constant risk. One accident due to poor light would cost more than a year's supply of the Prest-O-Lite.

Our Prest-O-Lite Motorcycle tank is a foot long, 4 inches diameter, and weighs (when full) only 7 pounds. Convenient to attach and carry.

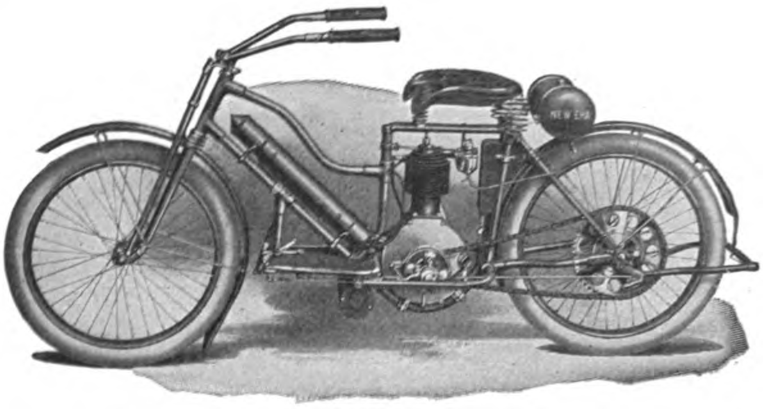
If your dealer cannot supply you, write us.

The Prest-O-Lite Co., 246 East South St., Indianapolis, Ind.

Branches at New York, Boston, Philadelphia, Pittsburg, Cleveland, Chicago, Detroit, Providence, Minneapolis, Omaha, Dallas, Los Angeles and San Francisco.

NEW ERA AUTO-CYCLE

IT'S THE HAPPIEST COMBINATION OF COMFORT-SAFETY-SPEED-DURABILITY AND FUEL ECONOMY



Patent Pending.

DON'T mistake it for an ordinary motor-cycle—it's extraordinary: The only two-wheel Automobile on the market—the only motor-cycle without pedals, without the old-fashioned saddle, without vibration, without work. WHY? HOW? It's motor—an air-cooled 3½ and 5 H. P. single cylinder—is started by means of a crank, like an Auto—in a few seconds, without pedaling.

NO SADDLE SORENESS EITHER

For the form seat—leather upholstered, and the position of it, between the wheels—prevents it. The foot-board helps lots. No hill too high, no street too crowded for the New Era with its two-speed transmission, which makes the rider the master over every emergency. Our catalogue tells the rest. Shall we send it?

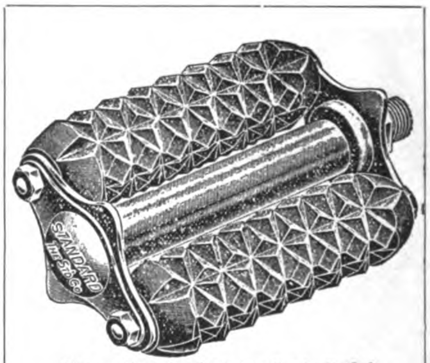
THE QUESTION REMAINS: DO YOU WANT A "NEW ERA" AGENCY?

Write us today

THE NEW ERA AUTO-CYCLE CO.

No. 22 Dale Avenue DAYTON, O.

STANDARD MOTORCYCLE PEDALS



No. 3, Standard Motor Cycle Pedal

Wide Tread Pedals **combining** ***Comfort, Utility*** **and** ***Reliability.*** **Constructed of the** ***Best*** **materials by** ***Skilled Mechanics.***

PRICE, $3.00 PAIR

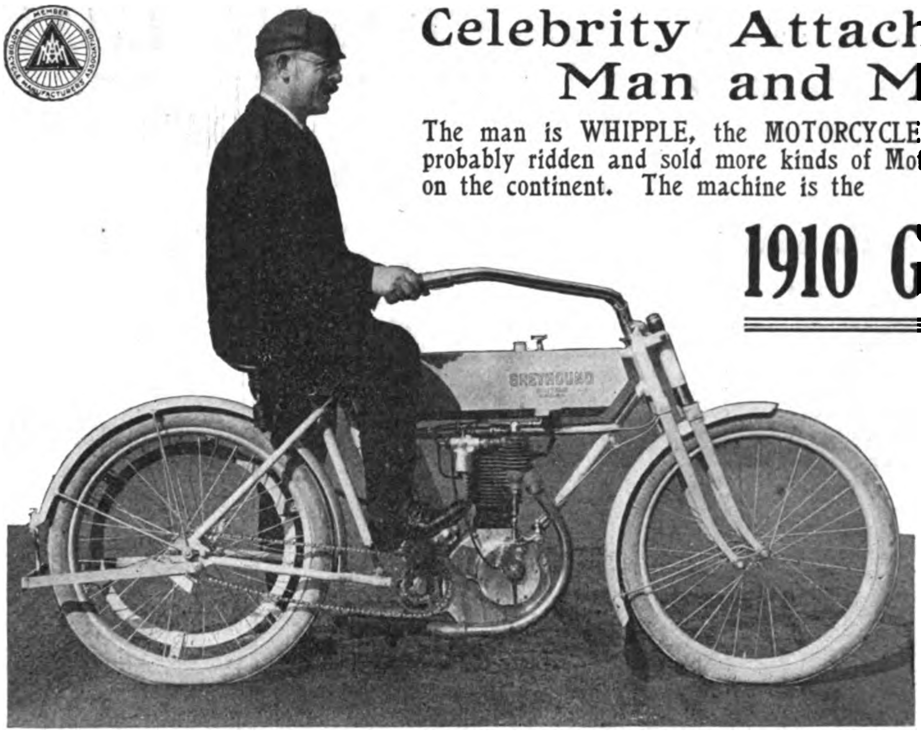
Emergency Axles, Sager Motorcycle Toe Clip, Diamond E <E> Spokes. Bridgeport and Standard Pedals. Sager and Standard Toe Clips.

Send for our Descriptive Circulars

THE STANDARD COMPANY

Torrington, Conn., U. S. A.

Kindly always mention the paper when writing to advertisers.



Celebrity Attaches to Both Man and Machine

The man is WHIPPLE, the MOTORCYCLE MAN of Chicago, who has probably ridden and sold more kinds of Motorcycles than any other man on the continent. The machine is the

1910 GREYHOUND

and the expression on Whipple's face indicates what he often says in words—"It's all right!" Fine lines, nice detail, ample power and the greatest comfort equipment in the world!

Prompt Deliveries, too, from this time on. Find out about it.

GREYHOUND
MOTOR WORKS
1459 Niagara St., Buffalo, N. Y.

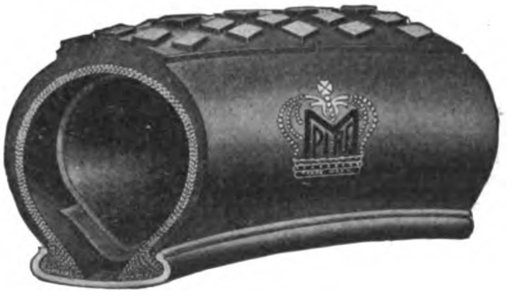
SALES AGENTS: Metropolitan District—ABBOTT-DETROIT SALES CO., 1521 Bedford Ave., Brooklyn, N. Y. Illinois, Indiana and Wisconsin—WHIPPLE, "The Motorcycle Man," 923 Jackson Blvd., Chicago, Ill. California—GEORGE E. HENGERER, San Gabriel, Cal.

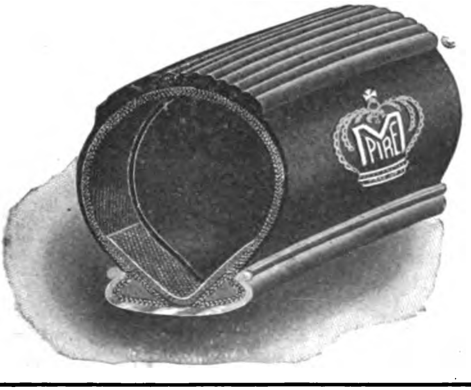
Empire Tires
WEAR LONGEST

Empire molded motorcycle tires are extra heavy and extra strong. They are made to give proper service on the heavier and faster motorcycles now being generally made. The best quality of Sea Island fabric is used—closely woven, of the same type as used in automobile tire construction. High class rubber is used throughout, which will give great wear and withstand great abuse.

CORRUGATED TREAD TIRE

This design will aid greatly in preventing side slipping, without detracting from the resilience or easy-riding quality of the tire in straight riding.





The Checkered Tread is the best non-skid tire ever offered for motorcyclists' use. It is very handsome in appearance. The rubber used in the tread is of a composition that gives the largest possible service. One of these tires ought to be on the rear of every motorcycle, the year around, as a guarantee against dangerous side slips.

EMPIRE TIRE COMPANY
TRENTON, N. J.

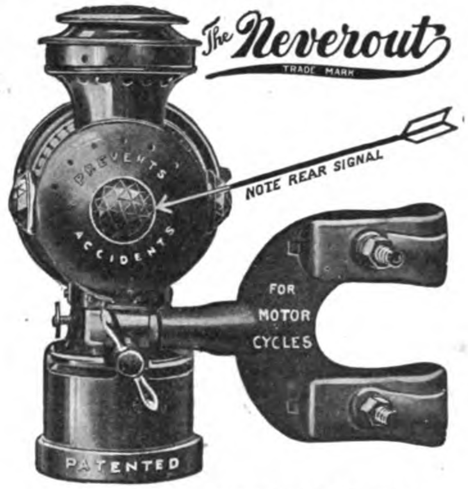
The Neverout
TRADE MARK

MOTORCYCLE OIL LAMP

SHOWING A RED REAR LIGHT

¶ The Neverout burns kerosene ten hours with one filling, and will stay lighted under any and all conditions. ¶ All riveted—will not rattle apart over roughest roads.
¶ Made in gun metal, brass or nickel finish

AN OIL LAMP THAT MAKES MORE LIGHT THAN MOST GAS LAMPS



Lamp Weighs Only 12½ Ounces

GUARANTEED TO STAY LIGHTED OR MONEY REFUNDED

¶ The Neverout is equipped with a PATENT GLASS COVERED REFLECTOR OF GERMAN SILVER, instantly removable, never loses its original brilliancy.
¶ The only perfect and reliable motorcycle lamp made.
¶ Double clamp bracket furnished, fastens lamp securely to fork of motorcycle. No danger of shaking off, and SHOWS RED REAR DANGER SIGNAL.

Sold by leading jobbers and dealers everywhere

ROSE MANUFACTURING COMPANY

933 ARCH STREET, PHILADELPHIA, U. S. A.

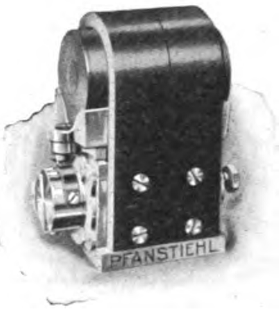
The Neverout complies with the laws of the various States and Municipalities

PFANSTIEHL DUAL IGNITION
FOR MOTORCYCLES

NO MORE PEDALING

Pfanstiehl Dual Magneto
FOR REAL EASY STARTING

WATERPROOF, DUSTPROOF, COMPACT, EFFICIENT, HIGH TENSION DUAL AND SELF CONTAINED.
No Outside Coil or High Tension Wire.



Switch is placed on the handle bar
Two dry cells in the box

Start on dry cells, run on magneto.

TWO GOOD DRY CELLS LAST A SEASON

Minimum spark at the contact points, maximum spark at the plug. With the battery dead and thrown away, we guarantee an easier start than with any other magneto you have tried.

Write for Bulletin No. 11

"PFANSTIEHL" is harder to remember than STERLING but it means EVEN MORE

PFANSTIEHL ELECTRICAL LABORATORY
NORTH CHICAGO, ILL.

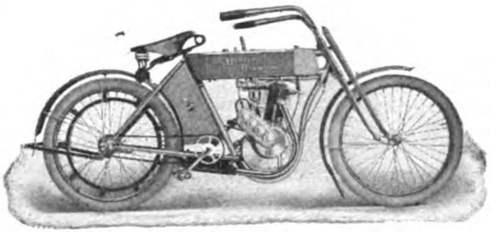
THE 1910 SINGLE CYLINDER

HARLEY-DAVIDSON

Won First and Second

In the Great Colorado Road Race

DENVER TO GREELEY AND RETURN



WALTER W. WHITING, THE WINNER OF THIS BIG EVENT

Averaged Over 37 Miles per Hour

For More than Half of the Distance,
And he Completed the Entire Course of

116 Miles Over Country Roads in

3 Hours, 23 Minutes

Mr. Whiting, who is an amateur, was riding a regular Stock Machine, but he set such a terrific pace all the way, that he DEFEATED THE TIME OF THE FASTEST OF THE PROFESSIONAL RIDERS, ALL OF WHOM RODE DOUBLE CYLINDER MACHINES,

By Nearly 10 Minutes

The remarkably consistent running of the HARLEY-DAVIDSON machines in this contest, was nothing short of phenomenal, but it only goes to further prove our claim, that

The 1910 Harley-Davidson

Is 100% Perfect

BUILT BY THE

HARLEY-DAVIDSON MOTOR CO.

MILWAUKEE, WIS.

HERZ MAGNETO

Made in Germany.

On YOUR Motorcycle means a FAT, HOT ARC FLAME at the first ¼ turn of your pedal and ever after. It's the strongest, most efficient, lightest and most compact Magneto made.

Over 15,000 on American 1910 Motorcycles.

EQUIPMENT ON: EXCELSIOR, PIERCE, THOR, YALE, HARLEY-DAVIDSON, GREYHOUND, EMBLEM, WAGNER

Thousands of Testimonials.

HERZ means absolute dependability

Mr. E. W. Rietz says: "It's the best Magneto made. My machine will run just as slow as a battery machine and is a lot more reliable."

THE HERZ-PLUG

"Bougie Mercedes"
The Famous
STONE PLUG

Absolutely
Self-Cleaning

Proof
Against
Oil, Water,
Dirt, Soot

A New and Highly Important Feature found only in the Herz-Plug Platinum Alloy 4 Point Disc ("Rolled into the Shell") Will Not Burn Away Not Affected by the Current Greatly Increases the Life of the Plug

Points can be adjusted to suit the compression of any motor.

The Greatest Value in Spark Plugs Ever Offered.
Absolutely Guaranteed One Year.
PRICE, POSTPAID, $1.50

HERZ & CO., 295 Lafayette St.
NEW YORK
(Civil Engineers.) WRITE FOR NEW CATALOG.

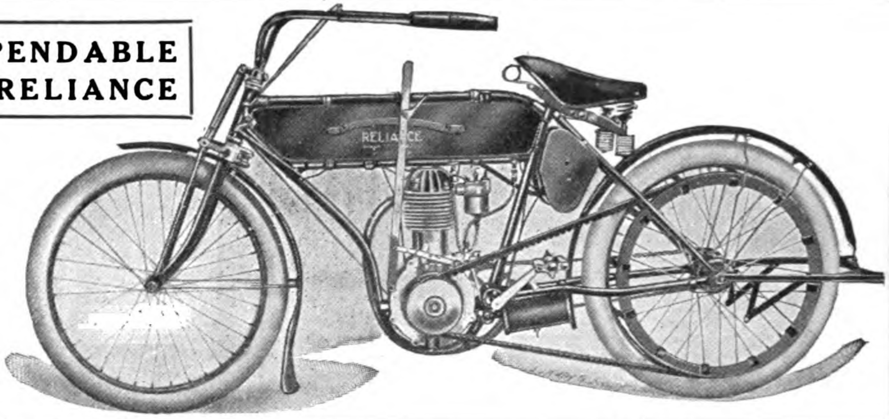
NEW AND YET DEPENDABLE FEATURES OF THE RELIANCE

Truss SPRING Fork, the most flexible and enduring made.

Two-Speed and Free Engine Transmission Gear, the FIRST practical, compact arrangement made. Largest Clutch, Largest Gears and Largest Wearing Surfaces. One lever control.

With this transmission the rider can start from standstill on the steepest hill. An absolute necessity for the construction of the perfect motorcycle. Full details in our catalogue, let us send you one.

RELIANCE MOTORCYCLE CO.
(*Member M. M. A.*) OWEGO, N. Y.



"BOYS"

Insist that your leggings are equipped with the "BROGA FASTENER" and your legging trouble will be over. Easy to put on, quick to take off, yet a sure lock and very classy.

Take it from one who has bumped the bumps on a motorcycle for five years.

The "Broga Automatic Fastener"

is a Godsend to legging wearers and if you accept any other you are getting the worst of it.

The "BROGA" is made in Syracuse and sold everywhere. All inquiries and questions promptly answered. We will be glad to hear from the manager of every Motorcycle Club in the United States, and then you will be glad that we are glad.

BROGA AUTOMATIC FASTENER CO.
368 West Fayette Street :: SYRACUSE, N. Y.

COME, BE A REAL GOOD SPORT

A few pennies properly spent will make you a member of the F. A. M., the national organization of motorcyclists. Its strength and influence and the value of the service it can render you are directly proportioned to the number of its members. Join and ask your fellow riders to do likewise. Detach annexed coupon and satisfy yourself that the F. A. M. is worthy of your support.

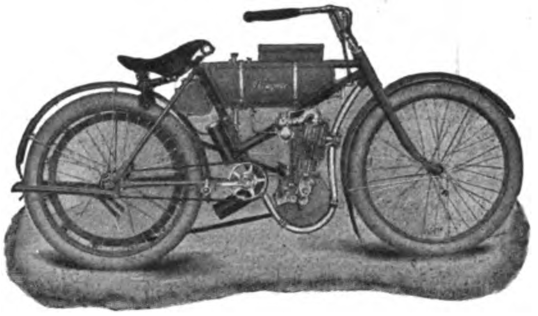
YOU NEED THE F. A. M.; IT NEEDS YOU.

MAIL THIS TO-DAY

E. M. ESTABROOK, (M. I.)
Chairman F. A. M. Membership Committee,
76 Lincoln Street, Bangor, Me.

Dear Sir: I feel that I ought to be a member of the F. A. M. Please send me particulars.

(Signed) ....
State ....
City ....
Street ....



An Every-Day Machine For the Every-Day Rider

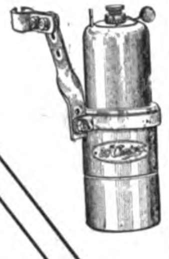
Incorporating all of the features that make for Comfort, Reliability and Genuine Satisfaction.

Our Catalog Explains

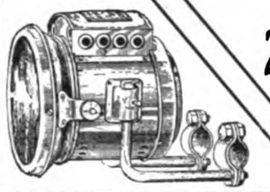
Sold by the Best Dealers Everywhere.

WAGNER MOTORCYCLE COMPANY
ST. PAUL, MINN.

IT LIGHTS THE WAY



¶ This lamp and generator are not only the finest in construction and the most satisfactory in service but with the brackets shown, fit every motorcycle.

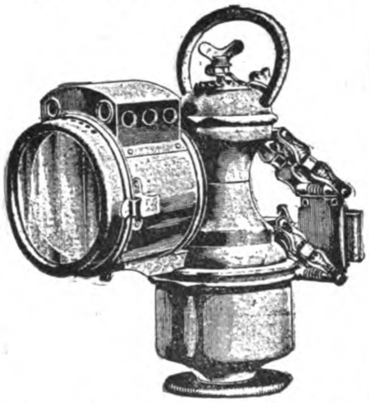


20th Century Mfg. Co.
19 Warren Street
NEW YORK

UP-TO-DATE ACCESSORIES for the Motorcyclist

Write today for our trade prices. Get acquainted with our line of goods. We can show you how to make more money.

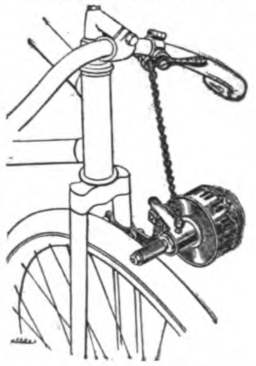
Combined Lamp and Generator



The best combination ever devised for the motorcyclist. Lamp has powerful mirror lens which projects tremendous light. Generator is simple in construction and easy in operation. Entire outfit weighs only 15 oz. Nickel finish.

No 88 Price $5.00 complete

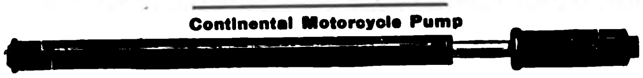
Motorcycle Siren Horn



Most powerful sounding horn designed for motorcycles. Operates by being brought into contact with front wheel. Controlled from handle bar. Supplied in nickel finish.

No. 2 Price with ratchet lever like above - - - - - $8.00
No. 1 Price with chain attachment 6.50

Continental Motorcycle Pump



The handiest pump produced for motorcycle use. Takes up little room as it fastens to frame. Furnished with frame clips. Made of celluloid. Two sizes. **15 inches long, Price 75c.** **18 inches long, Price $1.00**

If You Desire More Business and Increased Profits Write
The Motor Car Equipment Co., 55 Warren St., New York

RIDERS OF BELT DRIVE MOTORCYCLES

Give the following information regarding the Motorcycle you ride.

Make .... Model or Year ....
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Style Belt .... Width Belt ....
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Cut this coupon out and mail it to us. By return mail we will send you catalog information and price of fitting your Motorcycle with our

"K & R" TWO SPEED and FREE ENGINE DEVICE

"THE HUB WITH THE RED BAND"

With our increased facilities we are now able to make prompt deliveries. **RIDER AGENTS WANTED**, and this coupon will be accepted as a cash deposit on demonstrating **SET**, from the first 100 new agents appointed. Return of this coupon properly filled in will bring information in detail.

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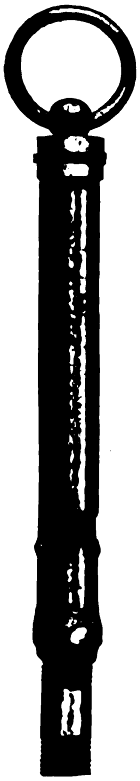
Kindly always mention the paper when writing to advertisers.



THE

"Nightingale" Whistle

FOR ANY

Motorcycle

Sounds a harmonious bird-like trill.
Operated from Exhaust.
Gives no back-pressure.
Attached quickly and without expense—simplv clamped to exhaust pipe.
Assures right-of-way.

Made of Brass **$4.00** Complete

Nickel-plated, $1.00 extra

Nightingale Whistle Mfg. Co.
1785 Broadway **New York**

The Only Practical Gas Motorcycle Lamp

Simply perfect—perfectly simple—absolutely safe. Thousands of satisfied users the world over will tell you so. It projects an intense white light 100 feet ahead, and cannot jar or blow out. Of course it's a

Solar

Solar lamps for a dozen years have been the standard of the world. Their best arguments are the riders who use them. The bicyclist and motorcyclist who adopts Solars bids a final good-bye to lamp troubles. Send a postal for our catalog.

Badger Brass Mfg. Co. Kenosha, Wis. New York City

(57)

Thor

The Motor Cycle Supreme

**WORKMANSHIP
EXPERIENCE
SATISFACTION
POWER, SPEED**

**USED BY THOUSANDS
WHY NOT YOU?**

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Thor Building Chicago

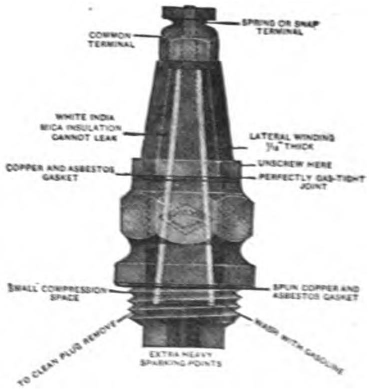
SMASHED!

The 100-Mile Record — at Playa del Rey, May 8 — by Derosier on an Indian equipped with the famous

SPLITDORF

Motorcycle Plugs

WILL OUTLAST YOUR MOTOR


COMMON TERMINAL
SPRING OR SNAP TERMINAL
WHITE INDIA MICA INSULATION CANNOT LEAK
LATERAL WINDING 1/16" THICK
COPPER AND ASBESTOS GASKET
UNSCREW HERE
PERFECTLY GAS-TIGHT JOINT
SMALL COMPRESSION SPACE
SPUN COPPER AND ASBESTOS GASKET
TO CLEAN PLUG REMOVE
WASH WITH GASOLINE
EXTRA HEAVY SPARKING POINTS

**INSIST
ON THE
PLUG
THAT
THE
LEADERS
USE**

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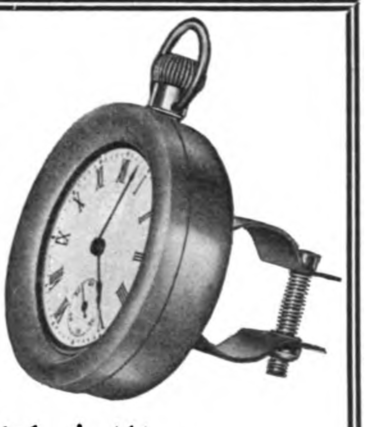
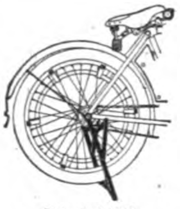
Walton Avenue and 138th Street. Branch, 1679 Broadway. - **NEW YORK**

Quick Action
Handle Bar
WATCH
HOLDER





Quick Action
Motorcycle Stand
Raised or lowered with the foot.
Locks automatically.

Patented 1909.
Other patents pending

Patent applied for

Quick Action
Motorcycle Repair Pedal
To replace a broken pedal. Fits either crank.

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TRY ALL SPARK PLUGS
GIVE THEM A FAIR TRIAL

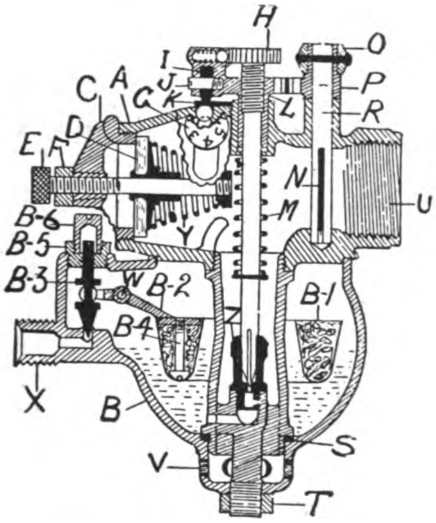
Seemingly most spark plugs give good service with very little trouble. If once in sixty days you remove your plugs to clean them, you seem satisfied because you believe that all plugs collect a certain amount of carbon and cleaning is a necessity. Other plugs will give a spark indefinitely without cleaning. Yet each explosion of the engine means a greater accumulation of fouling matter that not entirely, but greatly, reduces the sparking strength. To get the most from your engine, the spark must be uniform and the same always. Give the many other types a trial.

Then Try RELIANCE
"The Spark in Water Plug"

You will appreciate its value. No matter how much soot or fouling matter accumulates, it is impossible to destroy the Reliance spark—its intensity, heat and duration are the same under all and the most adverse conditions. Its construction is along entirely different lines and principles than any other plug. Sold in four types—Regular Type, $1.00; Long Type, $1.25; Mica Back, $1.25; Magneto, $1.25.

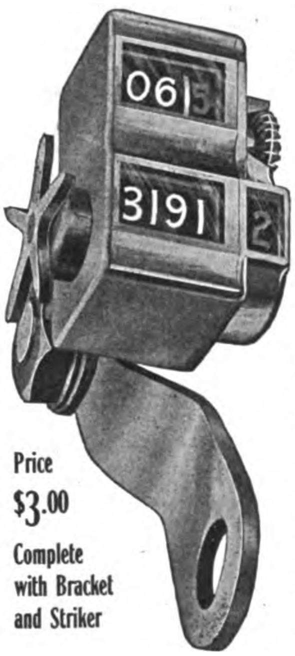
Jeffery - Dewitt Company
Spark Plug Manufacturers
DETROIT, MICHIGAN
OLD ADDRESS: 230 High Street, Newark, N. J.

INSTRUCTIONS FOR ADJUSTING HEITGER MODEL F MOTORCYCLE CARBURETER



ALWAYS adjust for low speed first, by screw H, with throttle partly open; usually requires from ¾ to 1 full turn. After low speed is correct, open throttle WIDE, and adjust by screw G for high speed; running G in feeds more gasoline, running H out feeds more gasoline. On high speed the track K usually requires an elevation of from 1/32" to 1/16" at its end; if mixture should be weak then at intermediate speeds, make a slight upward bend in track K; this will cause needle valve to raise earlier in the throttle opening, feeding a richer mixture. Too weak a tension on air valve spring will make hard starting. NEVER use screw H for high speed adjustment; use G only for high speed.

HEITGER CARBURETER CO., Indianapolis, Ind.
208 WEST SOUTH STREET



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$3.00
Complete
with Bracket
and Striker

Veeder
Motorcycle
Trip
Cyclometer

Made heavy and durable for the hard usage it receives on the Motorcycle.

Adjustable Bracket fits all makes of machines.

Large and strong striker.

Made for 24 in., 26 in. and 28 in. wheels.

The Veeder Mfg. Co.
42 Sargeant St., Hartford, Conn.

Makers of Cyclometers, Odometers, Counters, Tachometers, Tachodometers and Die Castings

DEALERS:

Ask for our special proposition for June and July sales

AMERICAN MOTOR COMPANY

716 CENTRE STREET BROCKTON, MASS.

SAGER CUSHION FORK

Often Imitated But Never Equalled.

Used as standard equipment on the

YALE *HARLEY-DAVIDSON*
NEW ERA *CURTISS*
MARVEL *WAGNER*
ARMAC

When purchasing these motorcycles you are sure to get **The First and Best Cushion Fork**

J. HARRY SAGER, Rochester, N. Y.

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MOTORCYCLE SUPPLIES

Send for our new
BIG CATALOG
now being printed. It is the largest, and prices are the lowest. It lists 100 new parts you should know about.

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Hammondsport, N. Y.

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We Will Sell You at Wholesale Agents' Price, One AMERICAN MOTORCYCLE if we haven't an agent in your city. We want our machines introduced in every town. We also want live agents and offer the best money-making proposition on American Motorcycles and American Bicycles. Write us—do it now.

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The British Motor Cycle
NEWSPAPER

American subscription rate, $2.50 per annum
"The Motor Cycle," 20 Tudor St., London, E. C.

NOW READY
For Distribution

1910 EDITION
OF
"Construction, Management and Care of Motorcycles"

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Motorcycles in Stock
4 H. P. Single Cylinder, $225
7 H. P. Twin " $300
Both with Bosch Magneto Ignition
GEO. P. JENKINS
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GOODYEAR STRONG FABRIC MOTORCYCLE TIRES WEAR LONGEST.

They're easiest to fix. Cost least for upkeep. Tough yet resilient and easy riding. Outwear several pairs of ordinary tires. Can be permanently repaired, if jagged by nails, etc.

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Akron, Ohio.

THIEM 1909

If you or your friends or your friends' friends are interested in the latest and best improved Motorcycles, regardless of how highly you regard other makes—do not purchase a Motorcycle until you have written us for Our Latest Catalogue describing in detail, all about Our New and Original Models. Best Agent Proposition to Date.

THIEM MANUFACTURING COMPANY
Box 498, Minneapolis, Minn.

The American Stepney Company

would not now be supplying almost all the motorcycle manufacturers with rims if it were not for the fact that they have conclusively proven to be entirely satisfactory.

For the benefit of the trade in general we are carrying in our Chicago and New York warehouses a large stock of assorted sizes for immediate delivery.

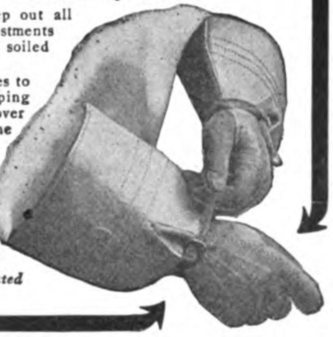
American Stepney Co.
GOODRICH BLDG. NEW YORK

GRINNELL GLOVES

Are Best for Motorcyclists

They are decidedly classy; keep out all dust; are so soft that delicate adjustments can be made with them on; when soiled are washable; wear like steel.

The "**Rist-Fit**" allows the gloves to be drawn snugly at the wrist, keeping the gauntlet from sagging down over hands. The ventilated back keeps the hands cool in hottest weather. See **Grinnell Gloves** at your dealer's. If he doesn't handle them write for pair on approval. Send for samples of leather and illustrated booklet.



Morrison-Ricker Mfg. Co.
27 Broad St. Grinnell, Ia.
Originators and Patentees of Ventilated and "Rist-Fit" Gloves

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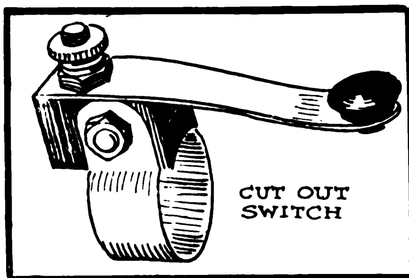

Motorcyclists, ATTENTION!

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INDIAN AND EXCELSIOR MOTORCYCLES

Magneto Cut-outs, 75c.; Covers, $1.25; Whis·les, $3.50 up; Sirens, $5.00 up.

FULL LINE OF PARTS AND REPAIRS

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The Absence of Vibration makes it pleasurable to ride

The Pierce Four Cylinder Motorcycle

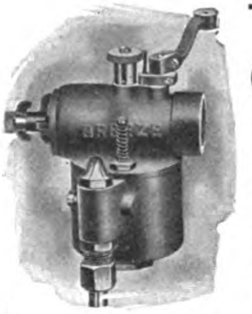
Besides this Vibrationless element, the Pierce Four is replete with numerous superior features, such as:

Four Cylinder Engine Shaft Drive (enclosed) Magneto Ignition Two-speed Transmission Force Feed Automatic Oiling System Free Engine Clutch Large Tubing; no Tanks

THE PIERCE SINGLE CYLINDER

motorcycle is like the Four in smooth and easy running qualities. This model represents the most advanced ideas in Single Cylinder Motorcycle design and construction. Ask for Catalog "G."

THE PIERCE CYCLE COMPANY, - Buffalo, N. Y.



The Breeze Motorcycle

CARBURETERS

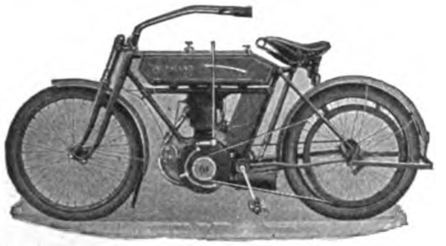
made of polished aluminum and nickelled brass. Weigh fourteen ounces.

Price $10.00.

80 to 95 miles per gallon under road conditions. Write for special literature. Send 10 cents for our Engine Trouble Text-book. 56 pages.

Have you seen our five ounce strainer? Price, $1.00

BREEZE CARBURETER COMPANY
250-252 SOUTH ST., NEWARK, N. J.



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1910 Splendid Greyhound, to the front at a single bound. It sells itself—A money maker—Get busy quickly. Secure a valuable agency.

ADDRESS, WHIPPLE THE MOTORCYCLE MAN

I sell at retail in Chicago and unoccupied territory.

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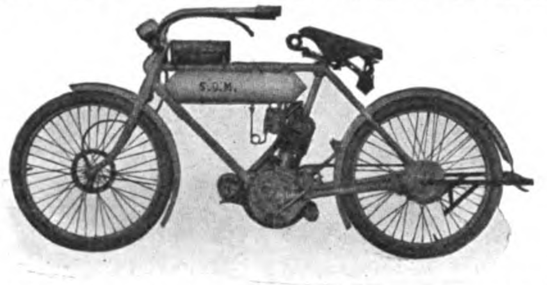
S. D. MOTORCYCLE



The most prominent and important feature of the S. D. Motorcycles is a shaft-drive system of a mechanism that has been brought to the highest perfection yet achieved in a motorcycle transmission. Write for our circular matter. Good Agency proposition.

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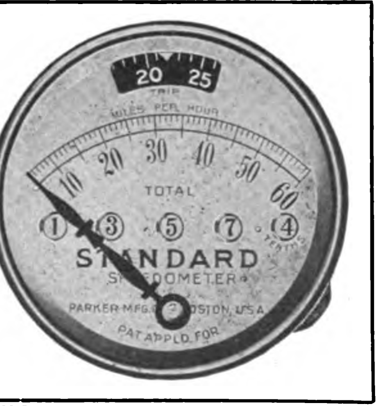
The "STANDARD"

THE INSTRUMENT OF PERMANENT ACCURACY

ONLY MOTORCYCLE SPEEDOMETER

WITH A STEADY HAND

The Police of several cities have replaced other speedometers with "STANDARDS," because "STANDARDS" remain accurate.



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Send at once for new catalogue.

Our New Models have Trip as well as Season Odometer without extra charge, and you have a choice of either 60 or 80 mile dials at the same price.

We can now furnish fittings for the following 1910 Machines:

Indian, Excelsior, Harley-Davidson, Yale, Curtiss, Marvel, New Era, Racycle, Emblem, Reliance, American, Reading Standard, M. M., Merkel, Thor, Pierce, Greyhound, Royal Pioneer, Minneapolis, Wagner, Crouch, N. S. U., F. N. and S. D.

STANDARD THERMOMETER CO., 65 Shirley St., BOSTON, MASS.

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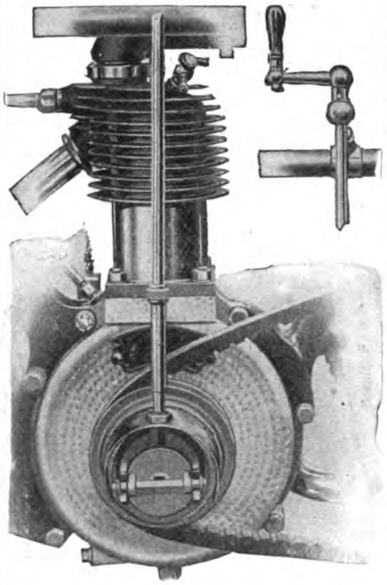
TWO SPEED

Do Your Work



NO MORE PEDALLING
to start

NO MORE PEDALLING
on hills

NO MORE WALKING
thru sand

The N. S. U. Two Speed does away with all the annoyances of starting or putting a motorcycle thru those tough roads which unseats the best of them.

GREAT!

Is what every user of the N. S. U. Two Speed exclaims.

JOIN THE RANKS

We can make immediate deliveries of the N. S. U. gear ready to attach to the

MERKEL—R. S.
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MARVEL and N. S. U.

Agents! Riders! Everybody! Write for description, etc.

N. S. U. MOTOR CO.
206 West 76th St.
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THE GENUINE
WATA-WATA BELT
HUGS THE
PULLEY

PATENTED IN AMERICA AND ENGLAND

We are Sole American Agents for the genuine Watawata Belting.

A MINISTER'S EXPERIENCE.

The Rev. B. H. Davies writes:

"The ⅞-inch belt on my 3 h. p. has done well over 7,000 miles this season, including 1.279 miles in the six days' record. Their immunity from trouble has made me an enthusiastic supporter of your belts."

REDUCED PRICES FOR 1910.

CUT DOWN YOUR EXPENSE AND INCREASE YOUR SPEED AND POWER BY FITTING THE GENUINE WATAWATA. It means more fun and less work; money in your pocket at the end of the season and victories and prizes in contests.

Specify the Majestic Watawata on your Motorcycle.

Buy of your Dealer or direct, remitting with order. A fastener free with each belt.

Waterproof Luggage Carrier

Size 13" x 2½" x 9", being increased 1½ inches in length for 1910. Brown canvas cover with genuine Cravenette. Double thickness at bottom. Two handlebar straps passing through steel and leather plate, running full width of back. Extra strap to go around head. Last a lifetime.

PRICE, - - $2.75

BUY FROM YOUR DEALER.

MAJESTIC
TUBULAR BAGGAGE CARRIER
WITH THREE HEAVY STRAPS

Fifty per cent. larger and 100 per cent. stronger for 1910. Four supports instead of two. Tubing increased in size. Heavier clips and bolts. Longer straps. Fits all 1909 and 1910 machines.

PRICE, $5.00.

ORDER NOW FROM YOUR DEALER.

Dealers supplied only by Jobbers. Jobbers supplied by

D. P. Harris Hardware Company, New York
or the
Majestic Manufacturing Co.
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The Shamrock Gloria Belt

WINS

1st

3 Years Straight
1908-1909-1910

IN THE GREAT TOURIST TROPHY

The Winners of 1910

1st Matchless
2nd "
3rd Triumph
4th "
6th "
10th Matchless

ALL using
S. G. BELT
without trouble or adjustment

The Fastest Lap - - -	**S. G. Belt**
1st Lap Record - - - -	**S. G. Belt**
All Prizes - - - - - -	**S. G. Belt**
Best Performances - -	**S. G. Belt**

A wonderful list of performances—a performance which places a strain on the transmission equal to no other competition — The S. G. makes good, it will make good for you too, now and always.

If you want real satisfaction

SPECIFY

S. G.

BELTS

INSIST ON THE ORIGINAL

All Manufacturers Equip Them
All Dealers Sell Them

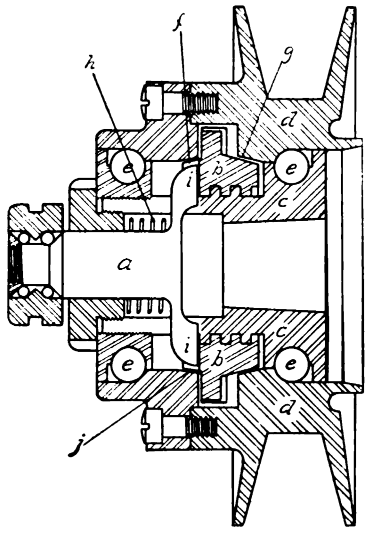
OUR BOOKLET M EXPLAINS ALL

N.S.U. MOTOR COMPANY
206 West 76th Street
HANOVER VULCANITE CO.
16th Street and Irving Place, New York City

ECLIPSE

FREE ENGINE PULLEY

Brand New—First Uncovered at New York Show



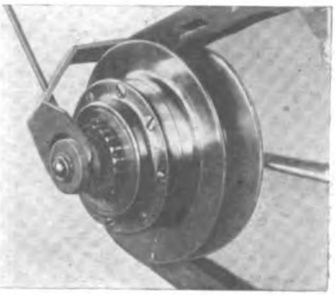
Have you ever GROANED under the heavy load of a "dead" engine?

Have you ever KICKED and SPURTED for miles on a frosty morning before you could get your engine warm and spark working?

Have you ever WONDERED at the size of your gasoline bill?

YES?

Then take note of the ECLIPSE FREE ENGINE PULLEY—the FIRST and only GREAT improvement ever made on motorcycles.



This attachment is applicable to **ANY** belt-driven motor cycle.

The scheme is simply to pull or release a lever operating a locking-pin and at will connect or disconnect the pulley from the driving-shaft.

When the pulley and the shaft are disconnected the engine is free and will run with the remainder of the machine at rest.

How convenient! **No more pushing of a "dead" engine for a mile or two! The ECLIPSE FREE ENGINE PULLEY** saves all this.

You cannot afford to be without one.

It adds pleasure to motorcycling.

It adds this pleasure **BY ACTUALLY REDUCING** the expense for a given amount of travel.

The price is fifteen dollars.

We "made good" on our Eclipse Coaster Brake.

We say we've got something as good in the ECLIPSE FREE ENGINE PULLEY.

GET ONE!

Besides the Free Engine Pulley our 1910 line includes the well-known Eclipse Coaster Brake, both in chain and belt-drive models, the Eclipse Front Hub, with knock-out axle, and the Eclipse Head sets.

Our 1910 Brake is changed in that we are using cork inserts in the brake sleeve, thus greatly adding to the efficiency of the brake and to its wearing qualities. We are also grinding the interior of the brake, brake sleeve and cones.

Literature on Above All Ready for Agents and Riders

ECLIPSE MACHINE COMPANY

ELMIRA, NEW YORK

LICENSED COASTER BRAKE MANUFACTURERS

MESINGER MOTORCYCLE SADDLES

FITTED WITH SHOCK ABSORBERS PREVENTING SIDE-SWAY. CURLED HAIR PADDING. MADE ON THE STYLE OF A HORSEBACK SADDLE

Investigate carefully before you select the Saddle, which gives you the most comfort. Be sure to have the right one to absorb the disagreeable jolts.

Messinger Motorcycle Saddles with fibre friction Shock Absorbers were well tested during 1909.

They give a comfortable pleasing Motion.

Mesinger
Cavalry No 3

	Price
Cavalry No. 1 12" x 9½" wide,	$5.50
Cavalry No. 2 14" x 10½" "	7.00
Cavalry No. 3 15" x 11" "	8.00

Cavalry Style No. 4 and 5, extra large size, made on the same style as Cavalry No. 3, but with short pommel. An Ideal Seat for heavy men and ladies.

Cavalry No. 4 13½" x 14" wide,	$10.00
Cavalry No. 5 13½" x 16" wide,	11.00

MESINGER
MAGNETO
COVER

MESINGER TOOL BOX

Closed on four sides, made of double leather, clamps to the top bar.

Stock size 9" x 3½" x 3¼". Price, $3.00

MESINGER TOOL BAG

MESINGER
MUD GUARD
EXTENSION

MESINGER MUD GUARD EXTENSION

made of Patent Leather on both sides. Can be attached to any Mud Guard and Spring Band to give shape as desired. Price, $1,50

MESINGER MAGNETO CASES

for Motorcycle and Automobile, to fit Bosch or Splitdorf Magnetos. Made of Patent Leather. Waterproof and easy to wash off. Price, from $2.00 to $6.00

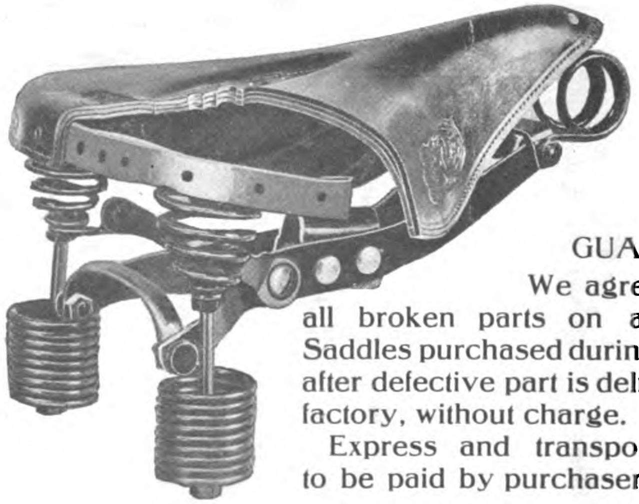
STANDARD STYLE

All Mesinger Suspension Saddle Tops are made of three pieces of leather to prevent Stretching or Sagging, which has been a difficult problem to Saddle Makers.

	Price
Standard No. 1, 11" x 8" wide,	$5.00
" " 2, 14" x 9½" "	6.00
" " 3, 14" x 11½" "	7.00
" " 4, 14½" x 12" "	8.50
" " 5, 14½" x 13" "	10.00

Illustration shows the careful construction of the three piece leather top, to hold the proper shape and to prevent stretching.

All Mesinger Motorcycle Saddles are fitted with Shock Absorbers.



OUR GUARANTEE

We agree to replace all broken parts on all Mesinger Saddles purchased during the season, after defective part is delivered to our factory, without charge.

Express and transportation have to be paid by purchaser.

H. & F. MESINGER MANUFACTURING CO.

1801-1803 FIRST AVENUE, NEW YORK CITY

JAN 18 1910

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TILDEN FOUNDATIONS

THE NEW YORK SHOW

TEN CENTS

MOTORCYCLE ILLUSTRATED

Vol. V January 15, 1910 No. 2
MOTORCYCLE PUBLISHING CO., 299 BROADWAY, NEW YORK

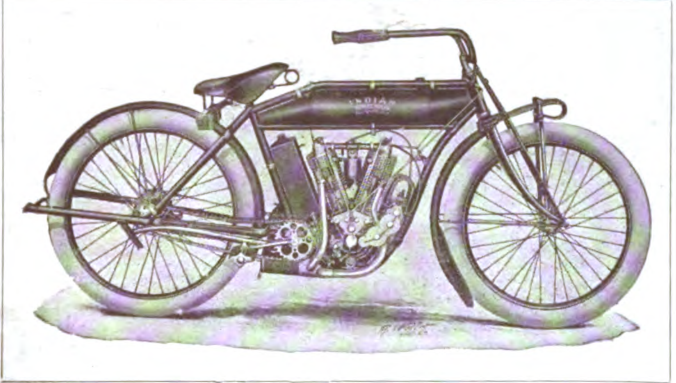
Elegance Simplicity Symmetry Efficiency
DISTINGUISH

THE INDIAN

as in a class by itself, but you should study the many advanced details and superb workmanship that make it the most notable machine in the world

POWER
THAT GIVES
RESULTS

QUALITY
THAT GIVES
CONTENT



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HENDEE MANUFACTURING CO., Springfield, Mass.
MEMBER M. M. A.

CHICAGO BRANCH, 1251 Michigan Avenue. LONDON DEPOT, 184 Gt. Portland Street

CHIEF KOKOMO

When You Put Away Your Machine How Were the Tires?

Undoubtedly in Good Condition

IF you had taken proper care of them, and also

IF those tires had been made of the finest Sea Island fabric, the kind that absolutely sticks;

KOKOMO
MOTORCYCLE TIRE
GRIDIRON TREAD

IF they were originally resilient, properly treaded and had hard and tough innertubes. That is the way

KOKOMO TIRES

are made. That is why they give unparalleled service under any and all conditions.

MR. AGENT, drop us a line if you want to be put in a way to please your customers.

KOKOMO
MOTORCYCLE TIRE
STUDDED TREAD

THE NEW KOKOMO RAISED STUDDED TREAD TIRE WITH FOUR ROWS OF STUDS

KOKOMO RUBBER CO.
KOKOMO, IND.

NEW ENGLAND NUMBER

TEN CENTS

MOTORCYCLE ILLUSTRATED

Vol. V March 1, 1910 No. 5
MOTORCYCLE PUBLISHING CO., 299 BROADWAY, NEW YORK

A HANDSOME ILLUSTRATED BOOK

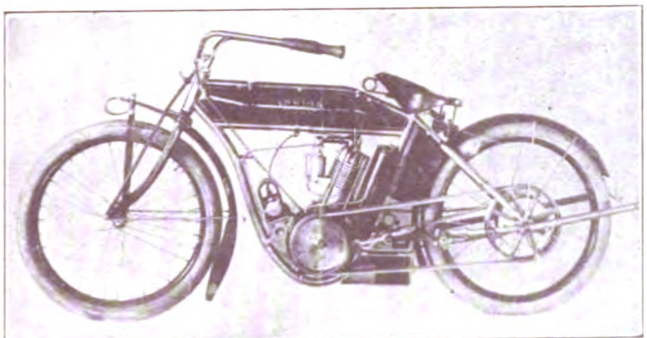
That Tells What You Ought to Know
About Motorcycles Has Been Issued by

THE INDIAN

It's Free, and You Cannot Afford to Buy
a Motorcycle Until You Have Read It

IT TELLS WHAT MAKES POWER

IT TELLS WHAT MAKES QUALITY



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SPRINGFIELD, MASS.
CHICAGO BRANCH, 1251 Michigan Avenue
LONDON DEPOT, 184 Gt. Portland Street.

CHIEF KOKOMO

SIGNS OF THE TIMES

At the New York Show:

63 PER CENT. of the motorcycles on exhibition were fitted with

Kokomo Tires

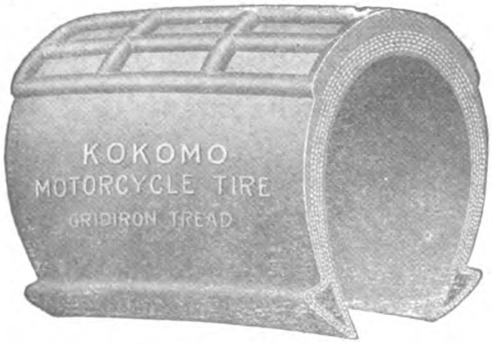
At the Chicago Show:

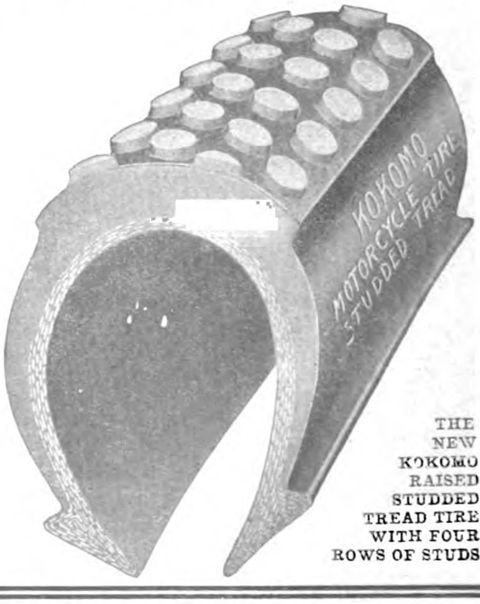
71 PER CENT. of the machines staged were equipped with

Kokomo Tires

As our motorcycle tire was brought out only last year, the wonderful strides it has made, of which these show statistics constitute but one indication, prove that the American public *does* know a good thing when it sees it and is quick to show its appreciation. Number yourself with the wise ones. Specify Kokomo tires and don't take NO for an answer.

☞In addition to our other sizes, we now are making and are prepared to supply 28 x 3 inch tires to fit the regular 28 x 2½ rims.





THE
NEW
KOKOMO
RAISED
STUDDED
TREAD TIRE
WITH FOUR
ROWS OF STUDS

KOKOMO RUBBER CO.

KOKOMO, IND.

TEN CENTS

MOTORCYCLE ILLUSTRATED

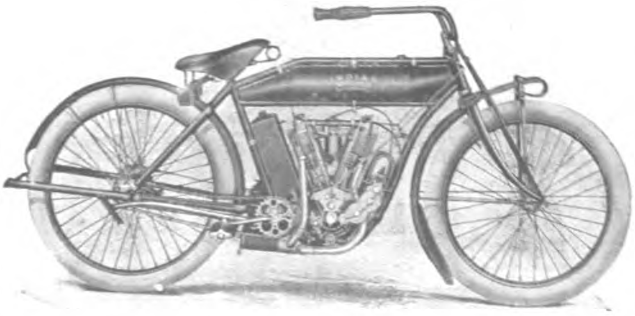
Vol. V March 15, 1910 No. 6
MOTORCYCLE PUBLISHING CO., 299 BROADWAY, NEW YORK

BUILT RIGHT: GOES RIGHT:
STAYS RIGHT

THE INDIAN

That's why it is the most popular motorcycle with experienced riders. Look it over. It will stand the closest inspection inside and out. Look at the Cradle Spring Fork, the Automatic Mechanical Oiler-the good things everywhere.

THE MACHINE
OF
PRECISION



THE MACHINE
OF
PERFECTION

THE HENDEE MANUFACTURING CO.
MEMBER M. M. A.
SPRINGFIELD, MASS.
CHICAGO BRANCH, 1251 Michigan Avenue LONDON DEPOT, 184 Gt. Portland Street.

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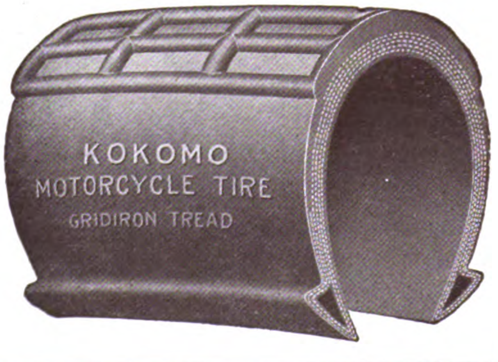
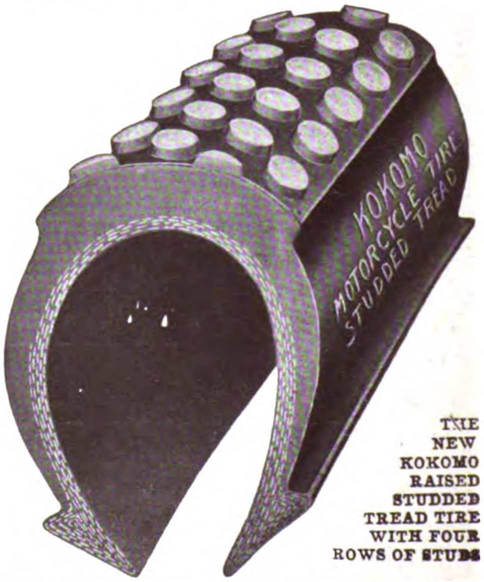


KOKOMO RUBBER CO.

KOKOMO, IND.



THE
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RAISED
STUDDED
TREAD TIRE
WITH FOUR
ROWS OF STUDS

TEN CENTS

MOTORCYCLE ILLUSTRATED

Vol. V April 1, 1910 No. 7

MOTORCYCLE PUBLISHING CO., 299 BROADWAY, NEW YORK

It's Ready and Fit to Ride When You Get It

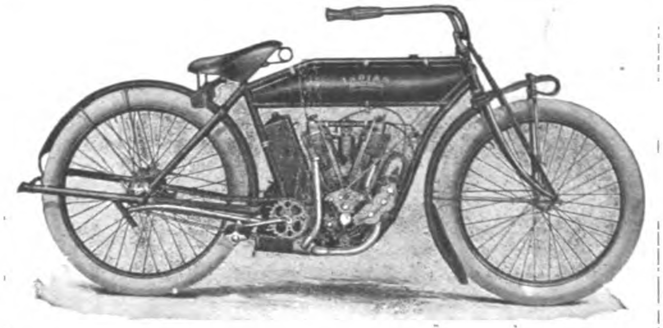
THE INDIAN

THE MACHINE of PRECISION

¶ You don't have to tune it up, tinker nor experiment with it before it is in condition to ride.

¶ That's because the work in the factory is so precise, so complete, so thorough.

ITS QUALITY WILL CONVINCE YOU



ITS POWER WILL PLEASE YOU

THE HENDEE MANUFACTURING CO.
MEMBER M. M. A.
SPRINGFIELD, MASS.
CHICAGO BRANCH, 1251 Michigan Avenue LONDON DEPOT, 184 Gt. Portland Street.

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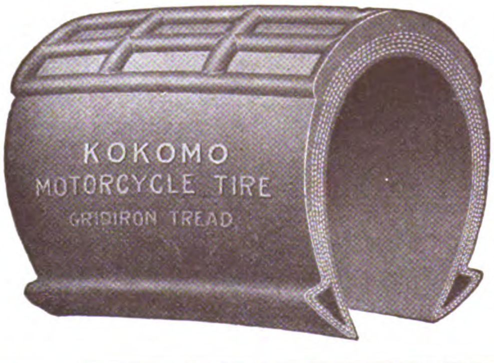
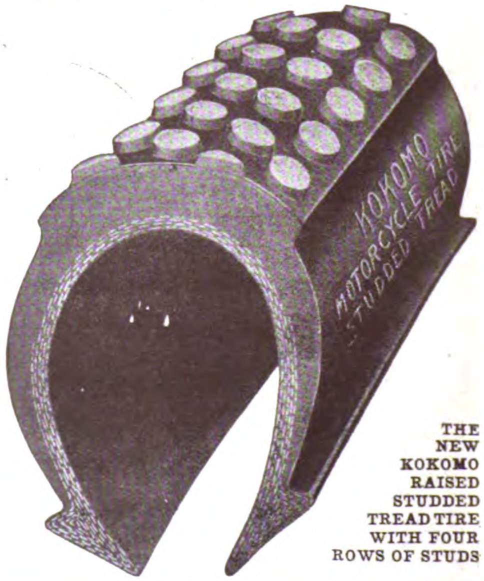
WE ALSO MAKE BICYCLE TIRES





THE
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WITH FOUR
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KOKOMO RUBBER CO.

KOKOMO, IND.

JUN 17 1910

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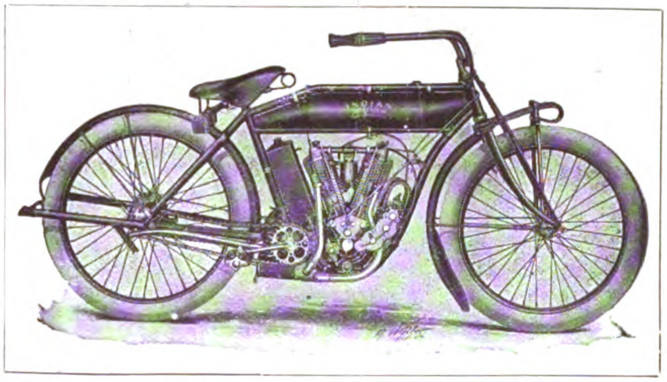
Vol. V June 15, 1910 No. 12
MOTORCYCLE PUBLISHING CO., 299 BROADWAY, NEW YORK

QUALITY THAT TALKS
In the Two Days' Run of the N. J. M. C.
THE INDIAN
Won the Manufacturers' Team Contest
Was the Only Team that Climbed the Big Hill
Made 5 of the 10 Perfect Scores

Quality That Means Something

Efficiency That Makes Good



ALL REGULAR STOCK MACHINES
Send for free illustrated catalogue No. 4
THE HENDEE MANUFACTURING CO.
SPRINGFIELD, MASS.

CHICAGO BRANCH
1251 Michigan Avenue

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184 Gt. Portland Street

Quality
Resiliency
Strength

Reliability
Comfort
Service

YOU CANNOT BEAT

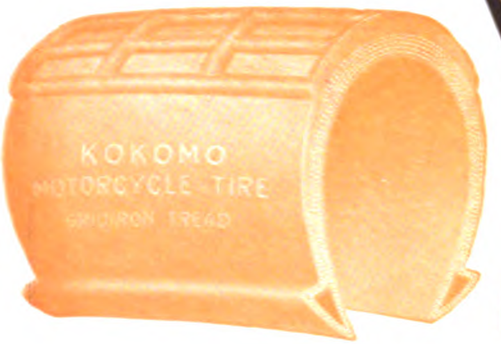
The above Combination in a Tire

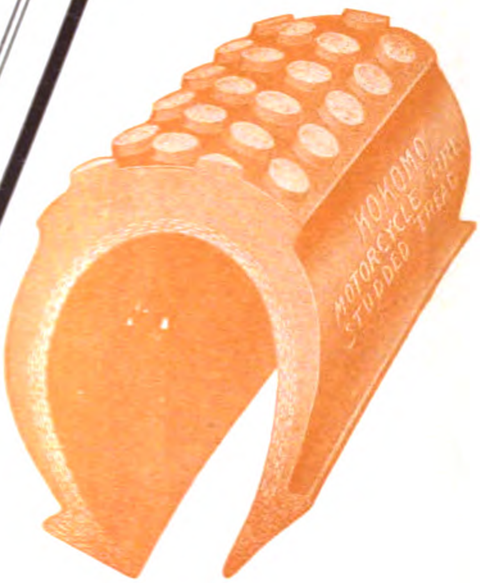
KOKOMO

MOTORCYCLE TIRES

though young in years,
have already established
a reputation.

Our Catalogue is
yours for the
asking.


KOKOMO
MOTORCYCLE TIRE
GRIDIRON TREAD

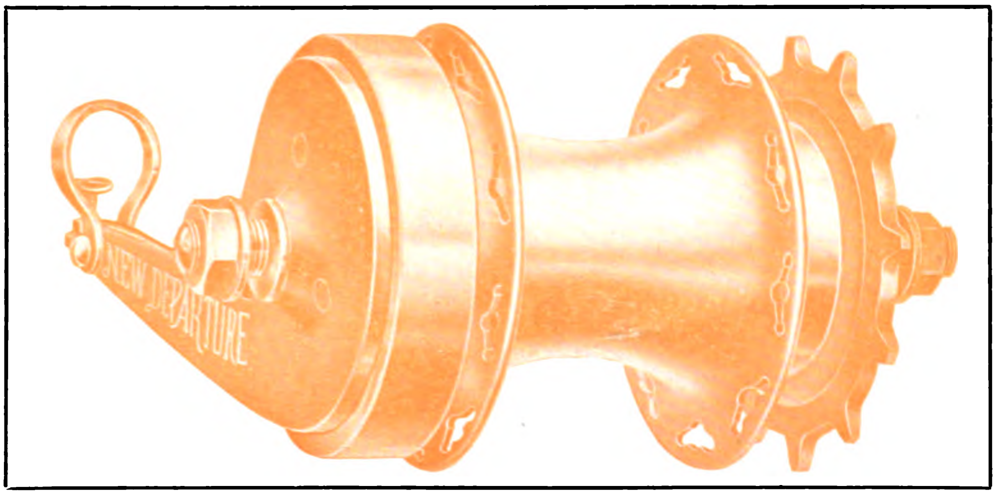

KOKOMO
MOTORCYCLE TIRE
STUDDED TREAD

KOKOMO RUBBER CO., KOKOMO, IND.

NEW DEPARTURE

INTERNAL EXPANDING BAND

COASTER BRAKE



STANDS PROVEN IN PRACTICAL SERVICE

Several thousand motorcyclists are using the NEW New Departure Internal Expanding Band Brake and find it can be depended upon absolutely. Not one of these brakes has failed to make good. Read the following statements of success of the NEW New Departure under severe racing conditions.

New York, March 18, 1910.

"In the Lowell motorcycle races of last year, I had the pleasure of using one of your internal expanding band brakes and to say the least I was pleased with the smoothness of operation and efficiency of the brake and I can say without hesitation that I attribute the winning of the 10-mile event to the positive action of the brake, as it was very much a matter of who could go up to the corners fastest, then using the brake and getting away quickest." STANLEY KELLOGG.

Alhambra Cal., April 18, 1910.

"After using your 1910 coaster brake on my chain drive racer, I found it to give absolute satisfaction, not only in racing but in road work also. The great trouble I formerly had when going at great speed in a long race was that coaster brakes always bound. This was a dangerous condition and usually caused a spill. Your brake does not bind and it has my highest recommendation to all riders.

EDDY LINGENFELDER.

WRITE TO-DAY FOR FULL DESCRIPTION

THE NEW DEPARTURE MFG. CO., Bristol, Conn.

COASTER BRAKE LICENSORS

READING STANDARD

The Best Single Cylinder Machines Made

May 30th, 1910.
Reading Standard Company,
Reading, Penna.

Gentlemen: Received the Model "5" 3-HP. and gave it a trial to-day. It's a peach. Can't say too much for it. It eats up hills and needs no coaxing on the level. Send another Model "5" and do it quick.

Yours truly,
PHELPS & NIEHAUS.
Quincy, Ill.

March 11th, 1910.
Reading Standard Company,
Reading, Pa.

Gentlemen: We just received Model "7" 4-HP. and we are more than pleased with it. We wish to congratulate you. We believe you have them all beat a mile for 1910. Yours truly,

SHEFF & RIGGS.
Colorado Springs, Colo.

RIDE AND SELL "1910"

R-S MOTORCYCLES

Tried and Proven To Be

"AMERICA'S BEST"

May 16th, 1910.
Mr. W. G. Rhodes, R-S Agt.,
Philadelphia, Penna.

Dear Sir: On the 6-HP. Twin you delivered me the other day I must congratulate you and the Reading Standard Company, on the beautiful lines, construction and appearance. It took all the hills on spark advance alone. Yours very truly,

R. S. MARTIN.
4805 Aspen Street,
West Philadelphia, Penna.

May 23d, 1910.
Reading Standard Company,
Reading, Penna.

Gentlemen: Again the Reading Standard wins. My private Model "8" 7-HP. finished with a perfect score in run to Hudson and return, 250 miles. Beat seven other 7-HP. machines and everything on the road. Carbureter is very fast. Yours very truly,

FRANK HART.
New York City, N. Y.

The Fastest Twins of Equal Piston Displacement in the World

J.P. ad- R.S.

READING STANDARD

MADE BY
READING STANDARD COMPANY
Bingaman and Water Streets, - - READING, PA.

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